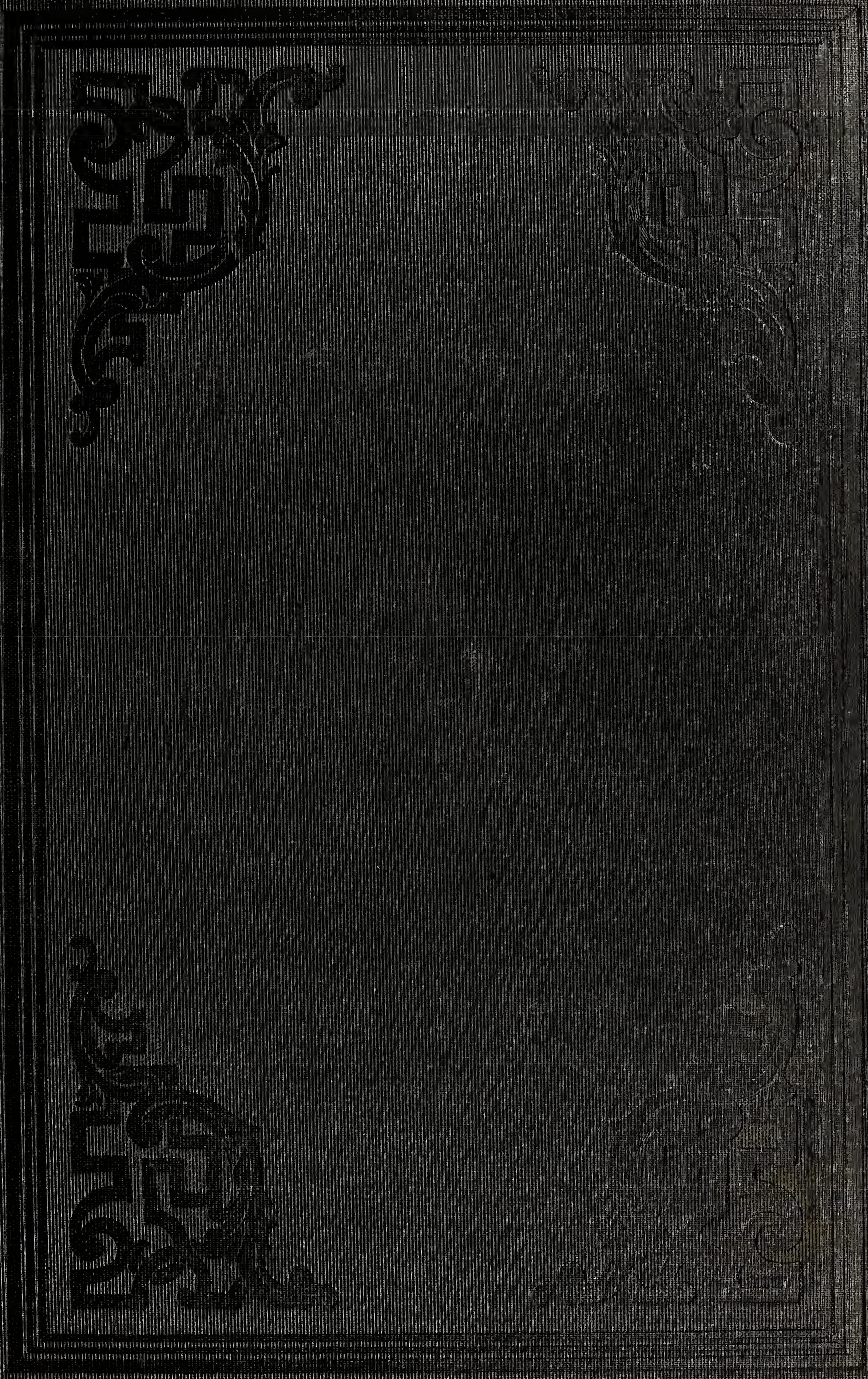


RULES AND REGULATIONS

FOR THE

LIBRARY

OF THE

Worcester County Horticultural Society.

ADOPTED BY THE TRUSTEES, FEB. 6. 1849.

Article I. All Books, Engravings, Paintings, and other articles appertaining to the Library shall be confined to the care of the Librarian, under the supervision of the Trustees.

Article II. It shall be the duty of the Librarian to keep a correct Catalogue of all the Books, Engravings, &c., belonging to the Library, together with a list of all the Books, &c. presented to the Library, with the date of the bequest, and the name and residence of the donor.

Article III. Not more than one volume, if of octavo or larger size, or two volumes if smaller than octavo, shall be taken out by any member at one time; or retained more than three weeks, if of the large size, or two weeks for the smaller; and every person shall be subject to a fine of ten cents per week for each volume retained beyond the specified time.

Article IV. Every Book shall be returned in good order, regard being had to the necessary wear thereof, with proper usage; and if any book shall be lost or injured, the person to whom it stands charged, shall replace it by a new volume or set, if it belonged to a set; or pay the current price of the volume or set, and thereupon the remainder of the set, if the volume belong to a set, shall be delivered to the person so paying for the same, unless otherwise directed by vote of the Trustees.

Article V. No other person than members of the Society shall be permitted to take Books, &c. from the Library; and no member shall loan a Book to another person.

Article VI. The Librarian shall keep a record of the names of all the persons who take Books out, together with the titles of the Books, and the dates when they are taken away and returned.

Article VII. All Books, &c. belonging to the Library shall be returned previous to the time of holding the Annual Meeting in each year. And it shall be the duty of the Librarian to report to the Society at each Annual Meeting the state and condition of the Library, and the addition, if any, made to it during the previous year.

Article VIII. Every Book shall have a copy of the foregoing Regulations affixed to it.

S
1
C967
1853
v.1
MHT

M. 4

THE

CULTIVATOR,

A MONTHLY

JOURNAL FOR THE FARM AND THE GARDEN,

DEVOTED TO

AGRICULTURAL AND RURAL IMPROVEMENT,

AND DESIGNED

TO IMPROVE THE SOIL AND THE MIND.

ILLUSTRATED WITH ENGRAVINGS OF

COUNTRY HOUSES AND FARM BUILDINGS, DOMESTIC ANIMALS, FARM IMPLEMENTS, &c.

VOL. I.—THIRD SERIES.—1853.

ALBANY:
PUBLISHED BY LUTHER TUCKER,
AT THE OFFICE OF THE COUNTRY GENTLEMAN 395 BROADWAY.

FROM THE STEAM PRESS OF C. VAN BENTHUYSEN.
1853.

INDEX TO VOLUME I—1853.

(THIRD SERIES.)

EXPLANATION.—In making out the annexed Index, we have placed every thing relating to *Cattle* under that head—so with *Horses*, *Sheep*, *Swine*, *Poultry*, *Dairy*, *Domestic Economy*, *Rural Economy*, *Books*, *Periodicals*, *Manures*, *&c.* Every article referring in any way to these subjects, will be found arranged under these separate heads.

A.

Accounts, Farm, how kept,....... 142
Addison Co. (Vt.) Fair,........... 341
Advantages of Shelter,........... 374
Advertisers, Suggestions to,....... 119
Agricultural Charlatanry,......... 35
— Chemistry,..................... 203
— Clerk in Patent Office,...... 226
— College, plan of,............ 74
— Fairs of the Season,........ 362
— — incorporated,.......... 181
— — Notes about,.......259, 355
— Education,................... 289
— Information, diffusion of,.... 201
— Machinery, increase of,..... 258
— — Improvements in,...... 297
— Museum,.................... 53
— Papers,...................... 355
— Reading, advantages of,..... 49
— Societies, Town,.......257, 289
Agriculture, British,..........305, 338
— Contributions of Science to,.. 175
— of Albany County,......... 208
— Quackery in,.............. 367
— Self-styled Scientific,....... 49
Albany Co. Ag. Society, Officers of, 151
— — — Fair of,............ 331
Amateur & Window Gard'ing, 251, 280
American Agave,................ 313
— Institute, Officers of,........ 228
Ammonia, Sulphate of,........... 180
Analysis of Shell marl,........... 141
— of Guano,.................. 141
— of Soils, Value of,.......... 203
— and Liming,................ 225
Animals, Duration of Gestation in, 94
— Apples for,..............119, 126
— Protection of in Winter,.... 156
— Shelter for,................ 125
— Tumors on,................. 149
Ants, Red, to destroy,........... 116
— Black, to destroy,.......... 217
Apples, American in Liverpool,... 55
— English Russet,............. 92
— for Stock,.................. 93
— for Cattle,..............119, 126
— for Milch Cows,........239, 352
— in the Northwest,.......... 58
— Western,................... 373
Ashes and Plaster for Potatoes,.10, 147
— Value of to the Farmer,.... 368
Atkins, J., Ingenuity of,.......... 240
Atmosphere, Composition of,...... 307

B.

Bars and Gates,.................. 322
Beans among Corn,.............. 151
Bee Hives, Patent,.............. 211
Bees, Hydropathic Treatment of,.. 128
— Management of,............ 109
— To Stop Fighting,.......... 256
Beets, Bassano,.................. 154
— Tops of for Fodder,........ 342
Birch, Black, as an Ornam'tal Tree, 283
Black knot on Plum Trees, 219, 249, 250
Bones, Gnawed by Cattle,........ 268
— for Manure—*See Manures.*
Book Farming, Remarks on,...... 353
— — Specimen of,.......... 18
BOOKS—Elements of Ag. Chemis. 331
Field Book of the Revolution,. 32
Little Silver String.,.......... 32
Nefflin on Milch Cows,....... 193
The Cold Grapery,............ 154
The Progressive Farmer,...... 160
Trans. N. Y. State Ag. Society, 1851.,.................. 24
Trans. of Mass. Ag. Societies, 331
Travels in Egypt and Palestine, 194
Treatise on Milch Cows,...... 310
Webster, Life of,............. 32
Western Fruit Book,......... 58
Woman's Record,............. 32
Broom Corn, Yield of,........... 323
Brussells Sprouts, Culture of,...... 186
Buildings, Box for Sanding,....... 238
— Toll House,................ 237
— Crystal Palace.............. 242
— Country Church,........... 212
— Green-House,.............. 345
Butter Making—*See Dairy.*
— Great Products of,..119, 147, 258
Burlington County, N. J.,......... 226
Burns, Cure for,.................. 378

C.

Calceolaria, Culture of,........... 284
Caledonia Co. (Vt.) Farming in, 118, 158
Canadian Agriculture,............ 161
Carrots, Large Crops of,..160, 161, 204
Caterpillars in August,............ 211
CATTLE—Age of,................ 37
Ayrshires for Canada,........ 258
— as Milkers,............. 317
— points of excellence in,. 286
Cattle—Ayrshires, product of half-blood,..................... 285
Alderney or Jersey,.......... 319
Apples for,...93, 119, 126, 239, 352
at State Fair,................ 320
Abortion in Cows,........126, 148
Black Leg in,.........288, 349, 353
Cut Hay and Meal for,........ 116
Calves, Feeding,.............. 349
— To kill Lice on,....125, 159
Cows, Tumors on Udders of,.. 93
— Period of Gestation,.... 94
— Remarkable product of, 119, 147, 258
— Milking in Winter,..... 83
— Good Ones,............. 119
— made Profitable,........ 376
— Guenou's mode of examining,............... 124
— Profitable,.........147, 215
— Great Milker,........... 244
— Good Milch,............ 317
— To prevent Failing in Milk,................. 350
— Experiment in Feeding, 352
Conveyed by Railway,........ 97
Derby,...................157, 377
Devons, error corrected,...... 62
— Imported by Mr. Vail,.. 318
— points of,.............. 220
— Mr. Morris',........... 304
Fattening,.................... 352
Feeding around Stacks,....... 358
Good Management of,....... 17
Gnawing Bones,............. 268
Herefords—Bull Trump,...... 24
— Imported by E. Corning, Jr.,................... 37
— points of,.............. 254
— in Kentucky,........... 258
Heavy,..................147, 258
Heifer giving milk without having had a calf,............ 367
Horn Distemper, &c., Cure for, 159
Hoven, Cure for,........189, 287
Importation of, by Mr. Morris, 37
— by Mr. Corning,........ 37
— by Mr. Spencer,........ 160
— by Dr. Wendell,........ 318
— by Mr. Chapman,....... 318
— by Mr. Vail,............ 318
— by Kentucky Company, 318
— by Mr. Thorne,.....322, 351
in Caledonia County, Vt.,..... 156

Cattle—Lopped Horns, To correct, 37
Lice on, To kill,..........125, 159
On salting, ...243, 276, 350, 367
Profits of feeding,.........124, 188
Points of excel'nce, 190, 220, 254, 286
Purchasing in England,....... 258
Root Crops and Straw for,.... 244
Shipped from England,....... 253
Shelter for,.................. 125
Short-Horns, Messrs. Morris & Becar's,...........253, 304, 320
— as Milkers, ... 317
— Mr. Thorne's,..322, 351, 380
— Col. Sherwood's....128, 226
— Dr. Wendell's,......... 318
— Sale of in Kentucky,... 318
— Sale of Earl Ducie's,... 322
Spayed Heifer,............... 62
Steers, Training,...93, 95, 221, 376
Stall-feeding,.............116, 188
Tumors on,................... 149
Value of Manure from,....... 270
Vicious,..................... 287
West-Highland,.............. 222
Cayuga Horticultural Society,..... 217
Cedar, Deodar,..................... 348
— of Lebanon,.................. 348
Celery, to keep in winter,......... 380
Cemeteries, Trees for,............ 122
Cement, Rosendale,............... 148
— for Brick Buildings,......... 151
— for Water Pipes,........... 180
Charcoal for Sheep,.............. 285
— Experiments with,......302, 374
Cherry Slugs, To destroy,......... 218
Cherries, Fine new,......248, 312, 316
— Good sorts,................ 312
— Qualities of, ... 372
Cheese—*See Dairy.*
Cheese Presses,.................. 116
Chess, To cleanse Wheat from, 160, 207
Chicory, Culture of,.............. 218
Chili Pine,....................... 374
Chimneys, Remedy for Smoky,.... 236
Chrysanthemums, Dwarf,........ 33
Churns and Cheese Presses,....... 116
Cider Mill, Portable,..........144, 240
Climbing Plants,............26, 92, 122
Clover with Corn,................ 28
— Manure for Wheat,......... 161
— Sowing in Autumn,.....290, 301
Clod Crushers,.................54, 139
Cleanliness, Heavy Profits of,..... 369
Clearing New Land,............... 179
Country Gentleman,............... 330
— Churches,.................. 212
— Home in,.................. 54
Cortland Co. Ag. Society,......... 63
Comstock's Terra Culture, 121, 192, 143, 226, 289
Connecticut, Farming in,......... 323
Corn Planter,.................... 302
Conservatories and Green-Houses, 345
Couch Grass, To destroy,......... 209
Crosskill's Clod Crushers,......... 54
Cranberries on upland, 116, 148, 259, 283, 290
Crops, Large,..................... 55
Crossing Varieties of Plants,...... 374
Crystal Palace,...............160, 242
Crows, to prevent depredations of, 181
CULTIVATOR, THE—Third Series,.. 9
— — for 1854,............... 330
Culture, Tull's System of......... 42
— High, and Great Crops 106, 237, 251, 337, 354
Cultivation, Great Secrets in,....... 107
Cultivator, Wheel.................. 149
— and Thistle Digger,......... 271
Curculio, Sulphur for,............ 152
— Lime for,.................. 155
— Experiments with,......... 184
Cuttings, to make strike,......... 314
Curl in the Peach,................ 251
Crowbar, Use of,.................. 381

D.

AIRIES—*Butter:*
Butter Making, experiments in, 278
— To make come,......... 343
— Large yield of,......... 147
Butter and Milk, constituents of, 182
— from one Cow,......... 215
— in Vermont,............ 118
Churning, Remarks on,...253, 343
— in Winter,..........97, 118
Cream, Management of,...149, 213
— and Milk,............ 179
Churns,......................... 116
Cheese, in Herkimer Co.....35, 183
— Cheshire, how made, 213, 245
— making in small dairies, 278
— Presses,.............. 116
Dairy Women, Secret for,.... 279
Milk, to prevent turnep taste in, 119, 213
Death of John Delafield,.......... 365
Delaware Co. Ag. Society......... 86
Diffusion of Agricul. Information,. 201
Discovery, Important, ... 380
Distilleries unprofitable for Farmers, ... 355
DOMESTIC ECONOMY:
Apples, to bake, ... 311
Ants, Red, to destroy,......... 116
— Black, to destroy, ... 217
Butter—*See Dairies.*
Burns, Simple Remedy for,... 378
Cream, Management of,...... 149
Combs and Brushes, to clean,. 378
Currant Wine, Recipes for,... 223
Drinks for Harvest,........... 279
Eggs, how to keep,.......223, 311
Erysipelas, Cure for, ... 279
Fire kindlers, to make, ... 87
Fruits, fresh, Preserving, ... 311
— Drying,................ 343
Green Ointment,............. 223
Glass, Cement for,........... 378
Hams, To Cure,............. 36
Hair, Good Wash for,........ 378
Jams, Jellies, &c., Recipes for, 279
Nose Bleeding, Cure for,...... 378
Oat Bread,.................. 268
Odor, Offensive, To destroy,.. 244
Peaches, Uses of, Recipes for,. 256
Potato Soup,................. 146
Seidlitz Powder, how made,.. 378
Sheep Skins for Door Mats,... 278
Skin Diseases, Remedies for,.. 378
Soap, to make pure White, ... 223
Tomatoes, how to dry,........ 256
— for Pies,............... 343
— to Preserve............. 343
Vegetables, Drying,.......... 278
Vinegar from Beets,.......... 146
Wine, Gooseberry, Black Currant, Blackberry, &c.,...... 279
Washing, New Mixture for,.. 279
Downing, A. J., Monument to,.... 10
Draining, Benefits of,............ 115
— Bushes for,................ 129
— Effects of,................ 78
— Hints on,.................. 300
— Plan for.................. 177
— Prevents Rust in Wheat,.... 169, 179
— Stones for,............ 227
Drains, position of sidehill,........ 267
Drill, Beebe's.................... 302
— An Improved Seed,......... 96
Drouth, Irrigation, &c.,........... 269
Duchess Co. Fair,................ 355

E.

Economy of Farming............. 11
Eggs, Hatching after Transpor'tion, 194
Embroidery, Useful,.............. 234
Endive, Culture of,.............. 218
Essex Co. Ag. Society,........... 86
Evergreen Hedges,............... 282
— Trees, Hardy, ... 348
Experiment Proposed,............ 176
Exports of Flour, Provisions, &c., 259

F.

False Teachings of Science,.. 265, 307
Fairs of the Season,.............. 362
Farm Economy, ... 11, 137
Farm Accounts, how kept,........ 142
— Management, ... 137
— of N. B. Hogg,............ 97
— of Peter Kaufman,......... 97
— Requisites for a Good,...... 335
Farmers' Clubs, ... 340
— — Constitution for,........ 370
— How to raise,.............. 64
— Influence of,............... 41
— Intellectual Position of,..... 51
— Practical, ... 235
— Professional Education of, .. 15
— Song,..................... 259
— vs. Mechanics, ... 342
Farming, Competition in,......... 97
— Can it be made Profitable? . 44
— Good,................ 337, 355
— Great Secrets in, ... 107
— in Vermont,....... 111, 118, 158
— in New-Hampshire, 111, 118, 159
— in Western Pennsylvania, .. 271
— in Windham Co., Conn.,.... 271
— Mr. Mechi's, ... 106
— Practical, ... 145, 170
— Profits of.......... 24, 142, 146
— Specimen of Book, ... 18
Fence Posts, Duration of,........ 378
Fences, Cheap,................... 243
Filter, A Cheap,.................. 378
Fodder, Economy of, ... 34
— Cutting and Steaming,...... 337
— Indian Corn for,........... 138
— Saving of,................. 93
Forge, Portable,.................. 81
Foreign Correspondence,.......... 277
Franklin Co. (Vt.) Ag. Society,.... 86
Frauds of Nurserymen, ... 312
Fruit Culture, Profits of,.......... 346
— — Interesting Facts in,.... 21
Fruit Trees, Autumn Transplant'g, 337
— — Buying of Pedlars,..... 59
— — Culture necessary for,.. 60
— — Clean Cultivation of,.... 217
— — Destroying,............ 250
— — Fall and Spring Transp'g 347
— — Fruitfulness of Budded and Root Grafted,.... 155
— — Girdling, ... 316
— — Influence of Manure on, 90
— — Liquid Manure for, ... 184
— — on Stony Soils, ... 122
— — Setting too Deep,....... 282
— — Treatment of Injured,.. 154
— — Washes for, ... 154
— — Watering,.............. 240
Fruits, Market and Cost of,....... 316
— Native and Foreign,........ 20
— New,...................... 313
— Notes on, ... 312, 372
— Notice of,.................. 90
— Ripening and Marketing, ... 347
Fuchsia, Culture of,.............. 185

G.

Garden Fertilizers,............... 315
— Plants, Transplanting,...... 314
Gardening, Amat'r and Win'w, 251, 280
Garden and Fire Engine, ... 219
— Kitchen,........... 59, 154, 218
— in Cities,.................. 217
— Plans for Flower,......... 88
— Seeds, Sowing in Autumn, . 252
— Trench Plowing,.......... 152
Gate, Balance,................... 96
Gestation in Animals, ... 94
Genuine and False Teachings of Science, ... 265, 307
Glass Water Pipes, ... 277, 367
Gold and Farmers' Prices,........ 105
Gooseberry, Houghton's Seedling,. 284
— Remedy for Mildew on, ... 316
Grafting Wax, How made, .. 218, 226
Grafts, Maturity of, ... 122
— To preserve,.............. 56
Grain, Standard Weight of,....... 97
Granary, Rat-proof,.............. 244
Grapes, American, ... 88, 252, 372
— Clinton,.................. 153
— Culture of, ... 154
— Crossing Varieties of, ... 348

Grapes, for Cold Houses,.......... 120
— Insects on, ... 187
— Mildew on,............ 250, 281
— Notes about,............... 88
— Preparing Soil for, ... 218
— Valuable Variety,.......... 284
Grass, Couch, To destroy, ... 209
— Orchard, ... 96
— Lands, To destroy Moss in,. 176
— — Re-seeding, ... 332
Green-House, Mr. Rathbone's,.... 60
— — and Conservatories, ... 345
Grounds, Suburban, Plan for,..... 281
Gypsum, Time to sow, .. 181, 227, 303
— Nova Scotia and Western,.. 180

H.

Harrow, Norwegian, ... 54
— Improvement in Geddes,.... 81
Hay Crop, Value of, ... 97
— Press, Dederick's,.......... 172
— — Emery's,............... 145
— Salting, 234, 243, 276, 310, 350, 367
Heavy Profits of Cleanliness, ... 369
Hedges, Buckthorn, ... 23, 122
— Evergreen,........ 23, 122, 282
— Red Cedar for, ... 179, 226
Home in the Country,............ 54
Hops, Culture of,...... 12, 82, 113, 149
— Cost of Crop, &c.,.......... 143
— Harvesting and Drying, ... 113
— Large,.................... 322
— Profitable Crop of, ... 238
HORSES:
Arabian in Maine, ... 195
at Vermont State Fair, ... 308
Black Hawk, ... 87, 181
Bots in,.................... 93
Colts, How to train,...... 188, 255
Consternation,.............. 224
Cough, Cure for,............ 349
Exhibition of at Springfield, .. 363
High vs. Low,.............. 377
How I bought one that had the heaves and how I cured him, 109
in St. Lawrence Co.,.......... 259
Morgan,..... 87, 94, 181, 258, 308
— at Springfield, ... 363
Prices of in New-York,...... 356
Right Education of, ... 255
Scratches, Cure for,.......... 349
Sale of Fashion,............. 193
To stop a Runaway, ... 222
Winter food for, ... 61
Young Black Hawk,......... 94
Horticultural Notes, ... 60, 120
Hotbeds, Covering for, ... 122
— How made,................. 59
Hydraulic Ram,........ 148, 149, 227

I.

Ice, Artificial, ... 119
— House, A cheap,........... 275
Implements at State Fairs,........ 129
— Trial of in Rensselaer Co.,.. 195
— — at Geneva, 29, 69, 98, 150, 195
Improvements, Progress of,....... 73
INDIAN CORN—after Turneps,. 87
Ashes, Lime, &c., for,........ 174
Culture of,...... 83, 169, 204, 234
Cost of growing,............ 138
Experience in raising,.... 50, 144
Experiments in harvesting, ... 80
— with different Manures,. 368
— with Seed, ... 365
— in Suckering,.......... 369
for Soiling,............ 36, 96, 227
Good Crops of,............ 97, 227
Hilling,..................... 38
Planter, Beebe's,............ 302
Preparation of Seed, ... 147
Pumpkins and Squa's with, 36, 149
Stowell's Evergreen,....28, 87, 129
Sowing Clover with, ... 28
Sowing for Fodder, ... 138
Suckers on, ... 301, 309
To keep Crows from, ... 181
White and Yellow, ... 180
Information Wanted. 87, 117, 334
Insect Repellers, Sulphur, &c.,.... 217
Insects in Wheat,................ 323
— on the Grape,.............. 187
— Pigeon-Hole Borer,........ 18
— Rose Devouring,........... 89
Investments in Weeds, ... 206
Irrigation and Liquid Manuring, .. 269

J.

Japanese Wind Flower,.......... 313
Jefferson Co. Ag. Society, ... 86
Jerusalem Artichoke, Culture of,.. 218
Johnson, S. W., ... 224

K.

Kitchen Garden, Crops for, ... 154, 218
— — Preparation of,......... 59

L.

Labor, Cost of, ... 271
Lawns, Topdressing,............. 152
Lillies, Lancifolium, &c.,......... 120
Lime—*see Manures.*
— Superphosphate of, ... 148, 323
Long Island, Farming on,......... 235

M.

Machinery, Labor saving, ... 86
— Agricultural, Improvem'ts of. 297
Management, Farm,.............. 137
MANURES:
Ashes, Tan &c. for Potat's, 10, 147
— Lime &c. for Corn, ... 174
— Value of to the Farmer, 368
Cellars for, ... 108
Comparative Value of,........ 259
Charcoal, Experi'nts with, 302, 374
Effective Action of, ... 114
Experiments with on Corn,... 368
from Geese, ... 87
for Roses, ... 211
for Gardens, ... 315
from Grain, ... 148
Guano and Poudrette, ... 226
— and Bone dust,.......... 227
— Use of at the South,.... 354
— Permanent Effect of, ... 310
— for Corn and Cotton,.... 87
— Analysis of,............ 141
— Value of,.............. 202
— How to apply, ... 149
Gypsum, Time to Sow, ... 227
Green Crops for,......... 300, 340
Hen,......................... 181
Lime and Marl, ... 43, 368
— How applied,.......... 77
Liquid, ... 97, 269
— for Fruit Trees,........ 184
Muck and Lime,............. 10
Making and saving,... 98, 139, 206
Mineral Theory of, ... 108
Marl, Analysis of Shell, ... 141
Peat ashes, ... 87
Poudrette. Experiments with, 273
Refuse of Salt Works, ... 310
Swamp Muck,............... 87
Superphosphate of Lime,. 148, 323
Tan bark for,................ 178
Tanks for Liquid,............ 299
The richest Mine of,......... 354
Value of from Cattle, ... 270
Manuring Land................. 336
Maple Sugar and Molasses,....... 380
Mechanics vs. Farmers,.......... 342
Melons, Culture of,.............. 187
Memorials of John P. Norton, ... 225
Mice, To prevent Injury from, ... 303
Michigan University,............. 67
— State Fair, ... 355
Milking in Winter,............... 83
Milk, To prevent Turnep taste in, 119, 380
Monroe Co. Ag. Society, ... 63
Mt. Fordham, Visit to,....... 304, 359
Moss in Grass Lands, ... 176
Mowing Machines, Emery's, ...81, 289
— — Hallenbeck's,...... 342, 379
— — Ketchum's,............ 341
Muck for Composts,.............. 379
Mulching, Importance of,......... 216
— Benefit of,.................. 367
Museum, Agricultural,........... 53
Mutual Instruction, ... 355

N.

Nash, Rev. J. A.,............. 224, 247
Nectarine, Large................. 316
— The Stanwick,.............. 91
Neatness and Order, Specimen of,. 25
New-Hampshire, Farming in, 111, 118, 159
— Grain Crops in, ... 234
New-York State Agricultural Society:
Annual Meeting.............. 84
Proceedings of Executive Committee, ... 31, 63, 85, 117, 194, 260
Premiums at Winter meeting, 112
State Fair at Saratoga,....... 320
Testimony to Luther Tucker,. 128
Winter Exhibition of, ... 85
New-York Agricultural College... 192
— State Poultry Society,. 321, 353
Nitrogen in Plants,.............. 205
North Western Fruit Grower's Association,................... 58
North Carolina State Ag. Society,. 261
Norton, Prof. J. P., Memorials of,. 225
Nurserymen, Frauds of,.......... 312
Nuts, Fine Seedling,.............. 372

O.

Oats, Culture of,................. 107
— Heavy, ... 19
— Seed for Large Crops,...... 205
Odors, Neutralising Offensive, ... 244
Ohio State Fair, ... 341
— Cattle Importing Company,. 52
Oil Cake, Value of, ... 66
Oneida Co. Ag. Society.......... 86
Onions, Culture of,.. 116, 117, 122, 147
Orange Trees..................... 181
Orange County Fair,............. 355
Orchard Grass, ... 96
— — Value of,............... 173
Orchards, Manuring,............. 251
— Destruction of by Mice,.... 373
— Importance of Draining,.... 154
— Management of Old,....... 152
— Peach, Proper Site for,..... 375
— Preparation of Ground for,.. 375
Oregon, Letter from,............. 257
Osier Willow, *see Willow.*
Otsego Co. Ag. Society,.......... 63
Ovid Academy,.................. 224
Ox Yokes, Form of,.............. 44

P.

Parsneps, Culture and Value of, .. 177
Peach Orchards,.................. 58
— — Proper Sites for, ... 375
— Stocks for Plums,.......... 155
— Trees, Curl in leaves of,.... 251
Peaches, Hardy at Oswego, ... 155
— Quality of, ... 372
— The Two Earliest,......... 91
Pears, American, ...312, 316, 345
— Autumn, ... 372
— Cracking of,........... 346, 374
— Notes about, ... 120, 312
— New, ... 344
— Ripening, ... 347
— Select Lists of, ... 346
— Summer,.................. 372
— Twenty Good Varieties,.... 123
— Winter, ...67, 120, 347
Pear Trees, Blight in,............ 346
— — Culture and Profits of,.. 346
— — Dwarf,.......... 58, 120, 155
Peas, To destroy Bugs in,......... 147
Pennsylvania, Farming in Western, 271

PERIODICALS:
  American Farmer, 258
    — Agriculturist, 355
  Blackwood's Magazine, 32
  Conn. Valley Farmer, 255
  Farm and Garden, 63
  Farmers' Companion, 63
  Graham's Magazine, 32
  Home Journal, 32
  Iowa Farmer, 225
  Journal of Agriculture, 63
  Kentucky Cultivator, 225
  Moore's New-Yorker, 63
  Michigan Farmer, 224
  Micellany and Review, 193
  New-York Agricultor, 63
    — Teacher, 259
  New-England Farmer, 63
  National Magazine, 66
  Ohio Farmer, 63
  People's Journal, 380
  Prairie Farmer, 63
  Southern Agriculturist, 225
  The Horticulturist, 66
  Western Hort. Review, 63
  Wool Grower, 258
PigeonWeed, To destroy, 78
Pie Plant, Varieties of, 154
Pine, The Chili, 374
Plants, Climbing, 26, 92, 122
  — Crossing Varieties of, 374
  — Striking Cuttings of, 314
  — Transmutation of, 243
  — Transplanting Garden, 314
  — Watering, 249
Plaster—*see Gypsum.*
Plowing and Manuring, 192
  — Deep, 276
  — in the Fall, 48
  — subsoil, To get a team for, 79
  — — in California, 97
Plows, Polishing, 108
  — Steam, 106
  — Subsoil, 310, 340
  — Tiffany's Draining, 177
Plum Trees, Black Knot on, 219, 249, 250
Plums, New Early, 313
  — Crop, Loss of, 315
  — General Hand, 315
  — Large, 316, 381
Poetry—The Farmer's Song, 259
  Unfading Beauty, 38
Pomological Meetings, 346
Portable Forge, 81
  — Cider Mill, 144
Posts, Timber for, 337

POTATOES—Culture of, 25, 77
  Directions for Rais'g Seedlings, 174
  Experiments with, 10, 173
  Ashes, tan and plaster for, 10
  Mulching, 96, 161
  Large Crop of, 37
  Large and Small for Plant'g, 43, 96
  Rot in, Notices of, 37, 119
    — Cure for, 341
    — Michigan Cure for, 160, 192
    — Compost to prevent, 143
    — in England, 370
  Stone Hill, 160
  Should the seed be cut? 171
  Yam, 119, 147, 226
Poudrette, Experiments with, 273

POULTRY—Best variety, 330
  Chittagongs, 119
  Chinese Varieties, 149
  Dorkings, 17, 226
  Diseases and Remedies, 223
  Era of, 129
  Mania, 140
  Management of, 222
  Proposed Show of, 258
  Sales of, 160
  Society, New-York State, 321, 353
  Shanghais, Original and Broadway, 127
Progress of Improvement, 73
Pumpkins, Large, 355
  — with Corn, 36, 149
Plums, Large, 316, 381

Q.

Queens Co. Ag. Society, 86
Quince Stocks, 123
Quackery in Agriculture, 367

R.

Rabbits, Fancy Lop-eared, 235
Railroads, Value of to Farmers, 257
Raspberries, Culture of, 91
Reaping Machines, Atkins's Self-Raking, 240, 289, 336
  — — Burrall's, 114
  — — Trials of in Scotland, 79
  — — — at Geneva, 29, 69, 98, 150, 195
  — — — in Renssel'r Co. 195, 257
Rennick, George Sr., 51
Rensselaer Co. Fair, 323
Rhode Island State Exhibition, 341
Rhubarb, Culture of, 186
  — Varieties of, 154
River Banks, To Protect, 16
Roofings for Buildings, 146
Rollers, Drag, 139
Root Crops, Culture of, 270
  — — Large, 204
Roots and Straw for Cattle, 244
  — Depth of, 323
Rose Bugs, To Destroy, 219
Roses, Manure for, 211
  — Manetti, 155
  — The Augusta, 123
  — The Four Best, 23
Rotation of Crops, 160, 233
  — and Good Management, 233
Royal Ag. Society of England, 273

RURAL ECONOMY:
  Cement Water Pipes, 180
    — for Brick Buildings, 151
  Glass Water Pipes, 277, 367
  Paint for Brick Houses, 127
  Preserving Shingles, 127
  Remedy for Smoky Chimneys, 236
  Roofing for Buildings, 151
  Rosendale Cement, 148
  Water-proof Paint, 343
Rutabaga, Cost of Raising, 210
  — Large Crop, 204

S.

Salsify, Culture of, 218
Salt for Gardens, 354
Saratoga Co. Ag. Society, 86
Science, False and Genuine Teachings of, 265, 307
  — Contributions of to Agric're, 175
Scotch Kale, or Borecole, 186
Scythe Snaths, Iron, 129
Sea Kale, Culture of, 154, 186
Seneca Co. Ag. Society, 63
  — — Fair, 366
Seasons, State of, 67
Shaping Trees and Shrubs, 184

SHEEP:
  at Vermont State Fair, 309
  Best, 159
  Charcoal for, 285, 222
  Cheap, 288
  Charcoal and Salt for, 222
  Colic in, 353
  Fattening, 286
  Feeding Troughs for, 61
  Fine, for Ohio, 380
  Food for, 258
  For Pennsylvania, 322
  French Merino, Mr. Jewett's, 221, 322
    — — Mr. Campbell's, 254, 288
  High Prices for Fat, 128
  Kentucky, 286
  Killed by Dogs, 142
  Lambs, To raise, 158
    — Docking, 222, 320
  Merino, Varieties of, 61
  Merits of Different Breeds, 156
Sheep—Management of, 189
  Oxfordshire, 95
  Protection for in Winter, 156
  Profits of Stall Feeding, 188, 192
  Shearing Festival in Vermont. 161, 209, 224
  South Down, Mr. Webb's, 285
    — — Mr. Thorn's, 288, 354
    — — Mr. Morris's, 304, 354
  Spanish Me'o, Mr. Campbell's, 288
  Tick, To destroy, &c., 352
  Wool, Heavy Fleeces of, 310
Shingles, To preserve, 127
Soils, Clay, To improve, 323
  — Hungry, 148
  — Improvement of, 266
  — Making the most of, 238
  — Treatment of Sandy, 116
Species and Varieties Explained, 22
Stall Feeding, Profits of, 188
Starch Factory at Oswego, 32
Starving in the midst of Plenty, 266
Steam Apparatus for Cooking Food, 290
  — Dryer, New, 225
Steuben Co. Ag. Society, 261
Stocks, Manetti, 155
Stone Drains, 227
Stump Machine, 127
Strawberries and their Culture, 282
  — Culture of, 282
  — Goliath, 153
  — New-Ohio, 280
  — Transplanting, 316
  — Tannic acid for, 289
Strawberry Baskets, Cost of, 310
Subsoiling and Trenching, 242
Sugar, Maple, Fine, 380
Sullivan Co. Ag. Society, 63
Sulphate of Ammonia, 180
Superphosphate of Lime, 148, 323
Swamps, Peat, Treatment of, 203

SWINE:
  Berkshire, Mr. Morris's, 304
  Fattening, 352
  Heavy, 147
  Improved Essex, 287, 304
  Pigs, How to Rear, 353
  Suffolk Boar Prince, 350
  Staggers in, 255
  Suffolk, Mr. Morris's 304
  Trough for, 305

T.

Tanks for Liquid Manure, 299
Tan bark, Experiments with, 178
Tannic Acid for Strawberries, 289
Taxidermy, How to perform, 180
Terra Culture, Comstock's, 121, 143, 192, 226, 289
Thistle Digger, Boughton's, 271
Tomato, Introduction of, 343
Transplanting, Fall and Spring, 347
  — Reasons for Autumn, 373
  — Garden Plants, 314
Transplanter, 187
Transmutation of Plants, 243
Trees and Plants, 249
  — American Forest, 321
  — and Shrubs, How to Shape, 184
  — Destroying, 250
  — for Cemeteries, 122
  — Large and Small, 155
  — Rapid Growing, 23
  — Second Growth of, 298
Trenching and Subsoiling, 242
Tucker, Luther, Testimonial to, 128
Tull's System of Culture, 42
Turneps, Culture of, 274
  — Crop, Value of, 302
  — Large Crops of, 204, 274
  — To Prevent Taste of in Milk, 119, 380

U.

United States Ag. Society, 67
  — — — Annual Meeting of, 84
  — — — Remarks on, 161
  — — Agricultural College, 192

V.

Varieties and Species Explained,.. 22
Vegetable Nutrition, ... 27
— Oyster, Culture of,......... 218
Vegetables, Late Sown,.......... 250
— Sown in the Fall,.......... 252
— Thinning out,............. 216
Vermont, Farming in, ... 111, 118, 158
— State Ag. Society,.. 32, 161, 260
— State Fair, ... 308
Victoria Regia, History of,........ 56
Vines, To protect from Bugs,..... 187
Virginia State Ag. Society,....... 86

W.

Washington Co. Ag. Society,..... 86
Washing Machine, New,......... 97
Washing by Steam,.............. 378
Washes for Fruit Trees, ... 154
Water, Absorption of by Soils, ... 335
— How to have plenty of,..... 298
— Influence of Large Bodies of, 123
— Pipes, Cement, ... 180
— — Glass, ... 277, 367
— Ram,............ 148, 149, 227
— Wheel, Improved, ... 129
Weeds, Extermination of,........ 174
— Investments in, ... 206
Wells, Cheap, ... 272

WHEAT—Advantages of Drilling, 335
Black Sea, Culture of,........ 234
Crop in Virginia,............. 258
Culture of on the Prairies, ... 14
Fine Specimen of, ... 322
Fly in,...................... 66
Heavy,...................... 19
Wheat—Prod'ction of new varieties, 241
Rust in Preven'd by Dra'ng, 169, 179
To save from Wheat Worm,.. 301
To clean from Smut,......... 323
To clean for Seed,....... 194, 207
Weight of Grain and Straw,: 225
Zimmerman, ... 50
Wheel Cultivator, ... 149
Willow, Basket, Its Cultivation &c, 77
— — Preparation of for Market,................. 171, 244
Wind Flower, Japanese,......... 313
Windsor Co. (Vt.) Ag. Society, ... 26
Windham Co. (Ct.) Farming in,... 333
Wisconsin State Ag. Society,..... 63
Wool, Market for,........... 335, 356
— Heavy Fleeces of, ... 310
Words to Men of Wealth,........ 183
Working Farmer, Reply to,.. 225, 307
— — Remarks on, ... 265

INDEX TO ILLUSTRATIONS.

BUILDINGS.
Country Church,................. 212
Crystal Palace, ... 242
Green-House, ... 345
Mt. Fordham, ... 304
Toll-Gate House, ... 237

CATTLE.
Aldeney Cow, Old,.............. 319
— — Improved,.............. 319
Derby Cow,...................... 157
— Bull,...................... 377
Escutcheons on Cows,........... 124
Hereford Bull, Trump,........... 24
— Points of,................. 191
Spayed Heifer, ... 62
West Highland Bull,............. 222

SHEEP
Mr. Jewett's Ten Thousand,...... 221
Mr. Campbell's Fre'h Merino Ram 254
Spanish Merinos, ... 288

SWINE.
Essex Boar, ... 287
Suffolk Boar Prince,............ 350

Young Black Hawk,............. 94

Fancy Lop-eared Rabbits,........ 235

Original and Broadway Shanghais, 127

FRUITS
Cherries—August Duke,.......... 248
— Champaigne,............... 248
— Great Bigarreau, ... 248
— Roberts's Red Heart,...... 249
Pears, Howell, ... 344
— Nouveau Poiteau,........ . 344
Plum, General Hand, ... 315
Strawberry, Goliath, ... 153

FLOWERS.
Agave Americana,............... 313
Calceolaria, ... 284
Chrysanthemuns, Dwarf, ... 33
Fuchsia Macrantha,.............. 185
Japanese Wind Flower,.......... 313
Lilium Lancifolium,.............. 121
Victoria Regia, ... 57

TREES AND PLANTS.
Black Birch, ... 283
Cedar of Lebanon,............... 348
Chili Pine, ... 374
Deodar Cedar,................... 348
Climbing Plants,................. 26

IMPLEMENTS.
Clod-Crusher, Crosskill's,......... 54
— — and Drag-rollers,....... 139
Drill, Beebe's, ... 302
— Bullock's, ... 101
Drills, Emery's,.................. 130
— Seymour's,................ 165
Harrow, Geddes's,................ 81
— Norwegian, ... 54
Hay Press, Dederick's,........... 172
— — Emery's,.............. 145
Mowers, Emery's................. 82
— Hallenbeck's, ... 379
— Ketchum's................ 135
Plow, Tiffany's Draining, ... 177
Reapers, Atkin's Self-raking, ... 336
— Burrall's,.................. 114
— Emery's,.... 130
Threshing Machine, Pitt's......... 164
— — Wheeler's,............. 163
Transplanter,.................... 187
Thistle Digger, ... 271

MISCELLANEOUS.
Box for Sanding Buildings,........ 238
Cider Mill, Portable,......... 144, 240
Drains, Illustrations of,........ 267, 268
Flower Gardens, Plans of,........ 89
Feeding Troughs for Sheep, ... 61
Forge, Portable, ... 81
Fences, Cheap, ... 243
Garden and Fire Engine, ... 219
Grounds, Plan of, ... 281
Ox Yokes, ... 44
Pigeon-hole Borer,............... 19
Pig Trough...................... 305
Pit for Striking Plants,........... 314
Sheep Tick,...................... 352
Tank for Liquid Manure,......... 299
Turbine Water Wheel,........... 132

INDEX TO CORRESPONDENTS.

NEW-HAMPSHIRE
French, Henry F., 109
W. A. W., 101, 118, 159
White, W. A., 158

VERMONT.
Arms, A. D., 285
A Subscriber, 149, 243
Campbell, George, 288
Cleavcland, C. H., 64, 94
Colburne, J. W., 188, 205, 276
C. S. H., 125
Edgerton, J. L., 368
H. G., 119
Holden, E. L., 159
J., 95
Jewett, S. W., 61, 158, 222, 236
Stearns, H., 122, 180
Vermonter, 124
Walbridge, T. D., 353
Whittemore, H. C. 116

MASSACHUSETTS.
Bacon, William, 67, 221
Burnham, G. P., 235
Clapp, Ebenezer, 189
E. N. N., 333
Multum in Parvo, 377
Nash, J. A., 224
Watson, Shepard, 228

CONNECTICUT.
A. B., 116
Andrew, John T., 156, 274
A Subscriber, 203
Battell, R., 147
Bryan, J. H., 87, 93
Durand. L., 176
Hubbard, C. S. 119
Hurlbutt, S. & L., 62
Johnson, S. W., 175, 224
Lewis, E. S., 149
Little, Norman, 148
Lyman, David, 193, 289
Moore, Eli, 283
Pratt, Phineas, 77, 187, 282
Platt, D., 87
Raymond, D. H., 315
West, Samuel F., 80, 206, 336
Williams, R. A., 330
Yeomans, A., 301
Yeomans, J. S., 147

NEW-YORK.
A Cultivator of the Soil, 146
A Farmer, 343
An Otsego Hop Grower, 12, 82, 113, 143, 149
A Subscriber, 270
A. S. R., 184
Badger, E. W., 98, 150
Barnes, W. D., 142
Burt, H. S., 174, 227
Bement, C. N. 77, 171
Benjamin, Horace, 147
Bennett, John, 365
B. M., 59, 60, 153, 154, 185, 186, 218
B. T., 342
Brewer, W. H., 180, 205
Buckley, S. B., 211, 301
Bulkeley, H. W., 109, 376
Bullis, O. N., 95
C., 169, 227
C. D. R., 148
C. E. G., 171, 174
C. C. R., 215
Chapman, S. P., 17
Composter, 48
Coffin, G. W., 144, 369, 371
Coppock, W. R., 43
Cowen, William, 122
Cropsey, H. B., 81
Deming, W. H., 78
D., 285
Devoe, D. D., 226, 227
Durant, George W., 173
E., 28
Eastman, H. H., 368
Eights, James, 10, 18
Emery, H. L., 29
Finney, R. A., 117
Foote, H. G. 277, 317, 367
G., 273
G. H. T., 149
Grant, William, 149
Hammond, George S., 235
Harold, John, 18
H. C. W., 159
Hildreth, I., 179
Hine, L., 174
H. L. D., 226
Hopkins, J. F., 173
H. W. C., 44
I. A. S., 16
J., 93
Jacobs, Ferris, 219
James. A. T., 147
J. M. S., 116
Johnston, John, 78, 145, 170, 203, 207
Linden, F. 226
Marshall, O. F., 147
Moore. John, 83
Moss, A. S., 218, 233
P., 317
Pardee, R. G. 56
Pope, J. L., 129
Potter, H. P., 238
Prince, W. R., 314
Remington, J. D., 94
Richmond, H. Y., 213
Risley, W. 116
Roffee, C. E., 49
Sands, W. F., 213
Sanders, E., 252, 280, 284, 290, 314, 345
Scram, W. H., 309
Sherman, B. F., 149
Shufelot, G. A., 50
Smith, Lotan, 147
Thomas, David, 22, 25
Thorne, J., 351
Todd, S. E. 79
Tomlinson, David, 284, 301
T. S. M., 227
W., 303
Watson, Joseph, 142
Watson, W. C., 302
Westinghouse, George, 195
W. M. H., 180
Worden, G., 155
Wynkoop, M., 36

PENNSYLVANIA.
A Farmer, 320
A Plain Farmer, 28
A Subscriber, 148, 310
Bemus, T. A., 181
Brown, C. B., 116
Burrett, Samuel, 123
Case, J., 96
Gates, G. R., 87
G. E. H., 156, 189, 271
H., 54
Hamilton, J., 90
Houghton, J. S., 275
Poley, F. B., 66, 147

NEW JERSEY.
Cleveland, H. W. S., 154
D. B. K., 139
Kingsland, G., 315
N., 49
Ward, J. M., 91, 119

MARYLAND.
Hoffman, W. C., 50
Marylander, 376
Smith, G. B., 15, 27
Todd, William, 204

VIRGINIA.
Orton, Orren, 96

NORTH CAROLINA.
S. F. P., 349

OHIO.
Anderson, W. M., 51
C. S., 374
Diehl, John, 125
Diehl, Elisabeth, 146
Gibbs, O. C., 48
Otis, J. 87
R. F. B., 181

KENTUCKY.
F. J. F., 349
G., 227
Sanders, Lewis, 96, 173, 179

TENNESSEE.
A. S. L., 117
Miller, W. H., 348

MICHIGAN.
Betts, Charles, 155
Marshall, J. A., 87, 181
Observer, 234, 350
Pierson, E. D., 108
Scott, William H., 138
Talbot, George, 121

INDIANA.
Kemble, C., 282
Wood, Thurston, 138

ILLINOIS.
Manny, J. H., 69
Williams, Adnah, 153

IOWA.
W. G. E., 14

OREGON.
A Subscriber, 257

FOREIGN.
Cuming, W. A., N. B., 141
Lee, James, C. E., 161
McKay, Francis, Nova Scotia, 89
Nash, J. A., England, 277, 305, 338

UNKNOWN.
Brown, D. T., 187
Medicus, 353
Observer, 53, 177
Vixen, 268

FORBES. VAN VRANKEN. N.Y.

THE CULTIVATOR.

THIRD To Improve the Soil and the Mind. SERIES.

Vol. I. ALBANY, JANUARY, 1853. No. I.

Third Series of the Cultivator.

With this number we commence the Third Series of The Cultivator. We commence a new series, because the supply of back numbers and complete sets is nearly exhausted, and to mark the fact of its reduced price. With this number, too, we enter upon a New Year, and with a hearty good will, wish all our subscribers happiness and success. Though separated from many of them by thousands of miles, we have a mutual ground of sympathy, mutual labors and hopes. We are striving for a common good—you in the bright sunshine and on the broad field; we in the confines of an office, and on a circumscribed sheet. We trust our readers will bear in mind that we are laboring for their interests, and that we intend to make The Cultivator the repository of the experience of the best skilled agriculturists of the day, as well as the advocate of principles of sound culture, as taught by the most scientific and reliable scholars of the country. While all the tendencies of the times are onward, and error plants, itself side by side with truth in the haste of rapid progress, we aim to be guarded and prudent; and while we shall welcome every advance in agricultural improvement, we shall also endeavor to distinguish between the false and true, and thus render The Cultivator a safe guide to the farmer. The matter of an agricultural journal must of course vary with the times, but the purpose and spirit of our work is always the same. Larger aims now enter the design of such a publication; for we have now to appeal to that knowledge and those tastes which at first it was our purpose to awaken.

A fruitful field and a cultivated mind lie at the basis of national prosperity and individual happiness, and whatever tends towards these, is within the scope of The Cultivator. We shall spare no pains or expense to make this journal worthy the continued confidence and patronage of those who have so long supported it, and to deserve all the eulogiums which the press and our friends have made, with regard to our efforts.

In thus commencing our Third Series at a merely nominal price, we ask for the continued aid and co-operation of all the friends of agricultural improvement. We must, of necessity, have a much increased subscription list, at the reduced price, or our expenses cannot be met. Will not each person into whose hands this number falls, use his best exertions to extend its circulation in his neighborhood, by getting up a club himself, or inducing some one else to do so ?

We also invite attention to the Country Gentleman, a specimen of which many of our subscribers have seen. We were led to its publication, from the conviction that a large class of farmers and others interested in rural life, wished something more in an agricultural journal than it was possible to furnish in the columns of a monthly. Horticulture and matters of rural taste, demanded more attention than the limits of the Cultivator would allow. The home education of farmers and their families, the social aspects of country life, the pleasures that slumber too often at the fire-sides of country residents, all present themselves as most desirable topics for discussion in an agricultural paper. A growing literary taste demands articles of a higher order than usually find their way into such journals. In a weekly journal all these subjects may be combined with strictly agricultural matter, in such way as to fit it for general perusal, and the improvement of the family circle, while the paper will be none the less valuable to the farmer. This combination, together with a concise summary of news, will supply a want that is felt to a considerable extent by country gentlemen and their families. We have already received many flattering assurances that we have not mistaken public sentiment in this matter, and we commend the Country Gentleman, to our readers as *the paper*, which no enlightened farmer, no man of rural taste, no one who wishes to educate his children to be farmers, should be without. We will send specimen copies to all who apply for them, and shall be obliged for all efforts made to promote its circulation.

Monument to Mr. Downing.

It will be seen by the annexed notice, that the Committee appointed at the late meeting of the American Pomological Society, at Philadelphia, have organised, and are prepared to receive subscriptions for the purpose of carrying into effect the duties assigned them. No man was more worthy of such a testimonial, and we doubt not the sum necessary will soon be raised—for who, among all those who have read his works, and appreciatted their influence upon the rural improvement of our country, will withhold his aid to a project so creditable to the living and the dead.

The undersigned were appointed a Committee by the American Pomological Society, at its late meeting in Philadelphia, (with power to add to their number,) to solicit from individuals, subscriptions, each of *one dollar or upwards*, to procure such testimonial as the Committee may deem suitable and expedient, in memory of the lamented Andrew Jackson Downing.

His private virtues, his great worth and important services in Horticulture, Rural Architecture, and the various branches of terra-culture, and his numerous and valuable publications, justly entitle him to this distinction.

In discharge of the duty imposed upon us, we transmit to you this Circular, and earnestly request your prompt co-operation in fulfillment of this benevolent design.

Associations as well as individuals who may receive this Circular, are requested to transmit, by mail or otherwise, their contributions to either of the subscribers, who will register their names, residence and subscription.

Marshall P. Wilder, Boston.
Robert Buist, } Philadelphia.
Caleb Cope, }
H. W. S. Cleveland, Burlington N. J.
Benjamin Hodge, Buffalo, N. Y.
F. R. Elliott, Cleveland, Ohio.
Law'nce Young, Springdale, near Louisville, Ky.
W. H. Breckenridge, Washington, D. C.
John A. Kennicott, Northfield, Illinois.

The several Vice Presidents of the American Pomological Society, and the Chairmen of the various State Fruit Committees, are hereby constituted members of the above Committee, with authority to appoint associates in their respective States and Territories.

MARSHALL P. WILDER, Chairman.

Potatoes in Tan, Plaster, and in Ashes.

Some interesting experiments have been lately made with these different substances, which afford valuable results. The Journal of Agriculture furnishes a statement of trials made with potatoes covered with six inches of salt hay; with slacked lime in the hill and salt over it; with lime only, and that on the surface; with a shovel full of *tan* in the hill; with a shovel full of marsh mud; and with a shovel of cattle manure. The salt hay, slacked lime and salt, manure, and mud, were all attended with equal results; the lime on the surface and lime in the hill, afforded one-sixteenth more; while the tan under the seed yielded one-fifth more, and tan on the seed one-eighth more—the latter being larger, smoother, and better than the others. To what cause is the favorable influence of the tan to be ascribed? Some, doubtless, would refer it to its chemical composition; but the more probable cause is its mechanical influence, in regulating the quantity of moisture in the soil. Unfortunately, we are not informed whether the soil was light or heavy.

From a set of experiments detailed in the Genesee Farmer, on "a dark clay loam," in Scoharie Co., N. Y., it appears that in all cases the application of ashes, in the hill, or ashes mixed with a smaller portion of plaster, resulted in the rotting of a portion of the crop—much more so than when nothing was applied. On the other hand, the application of plaster alone resulted in the entire soundness of the crop. Further investigation may be needed to determine how much of this result was owing to chemical, how much to mechanical, and how much to other or accidental causes. We have often observed that where the soil contained adhesive portions, which stuck like mud to the toes, that such potatoes always rotted first. Could the ashes or plaster have controlled this particular influence? It is proper to remark that the ashes were followed with a much larger crop than their non-application.

Slaked Lime and Muck as a Manure.

A correspondent has made the inquiry, whether slaked lime, if mixed with the vegetable production found in our swamps, termed muck, would prove beneficial to the soil as a manure. Our answer is in the affirmative; and we would confidently recommend the process whenever it is practicable. The reason why this vegetable material, when mingled with the soil in its pure condition, is of so little utility, is altogether owing to the circumstance of its containing a considerable quantity of resinous matter in its composition, which consequently prevents it from undergoing so ready a decomposition as is necessarily required. But by the addition of slaked lime, or ashes, to the ingredients, the lime, or the potash and soda of the ashes, combining with the resin, embraced in such quantities in the muck, produces a soap which is soluble in water, and easily becomes washed from the woody fibres that it contains, leaving the undecaying materials to the free action of moisture, and those other agents which facilitate its decomposition; consequently, slaked lime united with muck, should be recommended; but it will not answer so well to mix with any other manures differing materially from it, and which may owe their fertilizing properties to nitrogen. In this latter case ammonia will be formed, and speedily pass off, to be dispersed in the atmosphere. J. E.
Albany, Dec. 1, 1852.

Farm Economy.

"I am not *rich enough* to be economical," said a young friend of ours, when we strongly recommended to him the profits of a certain improvement. "The want of means compels me to work constantly to a disadvantage, and I cannot enjoy the privileges and profits of my richer neighbors." This is a difficulty in which many intelligent farmers have found themselves placed, and from which they would most gladly be extricated. Innumerable instances are occurring in their daily practice, where they could secure golden results, had they only the lever of capital placed in their hands; but as they are now situated, they seem to themselves like the man who is digging the earth with his unassisted hands, or the one who is compelled to carry water in an egg-shell, while their more fortunate neighbors are turning up the deep soil with the most perfect instruments, or sending streams of refreshment and fertility through easy channels over their entire farms. Now, we are not about to plan a "royal road" of escape from this difficulty; it must be met and conquered. If the attack is rightly made, the conquest will be comparatively easy; if wrongly, it will be the discouraging and formidable task of a life time.

The eager inquiry is now made, What is the easiest mode of conquest? We answer, the first and great leading means, is a large fund of thorough and practical *knowledge*. The man who, by a close observation of results in his own practice and in the experience of others, in connection with the immense amount of useful *suggestions*, (to say nothing of distinct practical directions) contained in the best publications of the day, possesses, even with a very short purse, a vast advantage over the short-sighted, ignorant, and unobservant capitalist. He will turn to advantage, even with his very limited means, a thousand resources which others would allow to sleep unemployed forever.

We once had occasion to observe the contrast in the condition of two young farmers, one of whom had a four-hundred acre farm "left" to him; the other had but fifty acres, which he had paid for in part, by previously laboring on a farm for some years by the month in summer, and teaching a district school in winter. The one had the capital of money which his own hands had never earned; the other possessed the more valuable capital of knowledge and indomitable perseverance. The young heir was more interested in riding about, in parties, balls, and in jaunts to the city, than in the details of farming, and knew the contents of the tri-weekly political newspaper, and of a certain frivolous magazine, much better than of any agricultural journal, or of Norton's Elements. His farm became an exact reflection of its owner's character. Fences were soon obscured by belts of alders, blackberries, and burdocks; and buildings showed marks of premature age, and became dilapidated. There was a thirty-acre marsh, which might have been drained, but it never was. And there was a patch of Canada thistles which filled one twelve-acre field, and part of another, which he could have destroyed in one season, had he known how others had done. One hundred and eighty loads of manure, as estimated at one time by a neighbor, were allowed to lie a whole year about his barn, without application. His cattle were of the long-horned, big-headed, sharp-backed breed. His swine were the Long-bristled Racers. His profits in farming may be easily guessed. There was a general complaint among his neighbors, that his debts were never met within six months after the appointed pay-day, and that he endured a sharp dun with extraordinary patience. It is true, necessity drove him to retrench his expenses, and the improved examples about him induced him to amend his practice, but not until his farm was reduced to less than half its original size, by portions sold off at three different times to satisfy mortgages.

Well, what become of the young fifty acre farmer, we are asked. He has ceased to be a "fifty-acre farmer." He began by examining closely what improvements could be made, of whatever character and kind, whether cheap or expensive. Among these he was compelled to select first the cheap improvements, or those which promised the largest profits for the smallest outlay. One of the first of these was the draining of a three-acre alder swamp, a large portion of which he did with his own hands in autumn. between seeding and husking. He had read of Judge Buel's success with *brush drains;* he constructed all the side or secondary channels by filling them at the bottom with the bushes cut from the ground, which enabled him to accomplish the work at less than half the usual price. These brush drains have now stood many years, and the brush being wholly excluded from the external air, has not decayed, and they carry off the little water required, being numerous, and at regular intervals. Now, observe the result: The alder swamp would not have sold originally for five dollars an acre; it now brings crops of corn, broom-corn and meadow grass, more than paying the interest on a hundred and fifty dollars per acre, besides all expenses. He doubled his manure by drawing from the most peaty portion of this drained swamp, large quantities of muck to his farm-yard, where it was kept comparatively dry till wanted, under a cheap slab and straw shed. By paying a small sum yearly, he was enabled to improve immensely the breed of his cattle, sheep, and swine, and which he thinks has returned the money thus expended at least twenty fold. The same keen attention to his business in other points, enabled him to effect many additional improvements, among which we may briefly mention a cheap and simple horse-power of his own construction, consisting of a rope running on the ends of radiating arms, which enabled him by means of one or two horses, as necessity required, to thrash his grain, saw his wood, drive his churn, turn his grind-stone, and slit picket-lath. It is true, he has now thrown this rude machine aside for the greatly improved endless-chain power, but it answered his purpose for the time, before the days of improved machinery. But among all his outlays for the sake of economy, there is none which he thinks has repaid him equal to the subscription money applied in taking two agricultural periodicals, costing him a dollar and a half yearly besides postage, and which, in connection with his own experience and good judgment, have been the chief guides in most of his great improvements. He has been enabled to add sixty more acres to his land, and the whole presents a beautiful specimen of neat, finished, and profitable farming.

None of this is fiction. It was gradually accomplished by years of constant, steady, intelligent perseverance.

A great loss occurs to the majority of farmers from too meagre an expenditure for implements—the effective medium for the action of all the labor. The eagerness to secure big farms, at the cost of their profitable culture, is a most fruitful source of bad husbandry. We observe by the last census, that the cash value of farms in the Union is over three thousand million dollars, and the value of farm implements only a hundred and fifty millions; that is, each farm worth three thousand dollars, has, on an average, only a hundred and fifty dollars worth of plows, cultivators, rollers, carts, wagons, harrows, fanning mills, straw cutters, root slicers, harness, shovels, spades, forks, hoes, horse and hand rakes, scythes, cradles, axes, hammers, sleds, wood saws, hay knives, ox yokes, chains, &c., &c., to say nothing of reapers, grain-drills and threshing machines, which may possibly be borrowed or hired. Instead of only $150, all these cannot be had, of good construction and quality, for much less than $500, leaving a deficiency of about $350 to be made up by slip-shod cultivation and by borrowing. In England, where taxes, poor-rates, rents and tithes, constitute together an enormous drawback on the profits of farming, and where, consequently, every operation must be performed to the best possible advantage, no one need hope for success who does not possess an amount of capital equal to forty dollars per acre, for procuring animals, implements, seeds, manure, and labor. "No prudent man," says the Mark Lane Express, "*ought* to rent more than he has that amount, at least, of available capital to go on with."

If, therefore, our farmers generally laid down at the commencement of their labors, the great fundamental principle that capital as well as farms is indispensable to success—that they might as well undertake to run a car on a single rail, as to farm with land only, or capital only—that they must especially lay in a heavy amount of that most efficient of all kinds of capital, *thorough knowledge*—they need no longer complain that they have a machine they cannot profitably manage—a locomotive without fuel, or without a competent engineer to take charge of its levers.

The Culture of the Hop.

Mr. Tucker—In answer to your call in the Oct. Cultivator, for "any one of your readers to give you, from his own experience, an article on the culture of the hop," I accept the invitation, and proceed to give, in as concise a way as I can, the general method of cultivating hops.

From considerable observation, added to seven years experience in the growing of this important crop, I may state in the first place, as one of the most important things necessary to the successful cultivation of this vine, is the selection of a suitable piece of ground. A very general remark in this hop-growing region is, that almost any land that will produce good corn, will also, with good care and high cultivation, produce good hops; and although this may be true to a certain extent, yet it is evident that soils composed of certain elements, of which others are destitute, are those best adapted to the growing of hops. The opinion of the writer is, that soils of gravelly loam, with retentive sub-soils, are the best found in this section.

The ground selected for hops should be level, or nearly so, as the high cultivation required will keep the land so mellow that it will be liable to wash and gulley, and thereby injure its fertility, if it is not nearly level. By all means avoid planting hops on steep side-hills.

The ground selected, the next thing requisite will be to put it in a proper state of cultivation to receive and nourish the roots. The most effectual way of doing this, is to till the ground thoroughly the previous year, with some hoed crop, (corn or potatoes, for instance.) A heavy coat of manure should be applied broad-cast, and well worked into the soil with the plow. It should also be plowed deep, and sub-soiled, to loosen the earth below the ordinary depth of surface plowing, (which is generally too shallow for any crop) as the roots of the hop, like most other plants, will spread and flourish best in deep, mellow soils. The fact of their roots running deep, will not be disputed by any one who has ever cultivated them, or attempted to plow up an old yard, as, in doing the latter, I have frequently found them to set a good team, their roots running straight down to the depth of three or four feet.

After the ground is made rich and mellow, and harrowed level and smooth, the best, as I think, and easiest way to mark the rows, is with a horse and light plow. There are two methods in use here of setting the hills. I have fields set both ways, and hardly know which I prefer. The first and old-fashioned way, is to draw our furrows as straight as possible—from east to west, seven feet apart—from north to south eight feet, and plant the roots where the furrows cross, so that the hill will be about level with the surrounding earth. This gives 770 odd hills to the acre. When set in this way, two poles are used to the hill, and two vines to each pole.

The other way, and it is preferred by some, is to mark the rows five feet apart each way, and set one pole to each hill. This will give a trifle over 1,700 hills to an acre. It is readily seen that the last method gives more than double the number of hills to the acre, and requires also more poles.

I believe that more hops may be grown on the same ground set by the last method than by the other; but there are some objections to it which must not be overlooked. It is our invariable practice in Otsego, to manure our hops well in the fall, before the ground freezes, by putting several shovels-full of good manure on each hill. This enriches at the same time that it helps to prevent them from freezing and dying out in winter. Now, every hill of hops requires about a certain quantity of manure to enrich and protect it properly, and if we have 1,700 instead of 770 hills to manure, we shall require more than double the manure to every acre, and more poles, both of which are scarce and dear.

The roots for planting, are obtained from old hills. They are called runners, branching from the main or bed root, in all directions, and running near the surface of the ground, somtimes several feet in length. They are easily obtained by digging with a hook, similar to a potato hook. These runners are full of joints and eyes, and should be cut in pieces, each piece to contain two sets of eyes. Three pieces, if the roots are good, (and if not they should not be used) are sufficient to plant a hill. Some prefer setting the roots in the ground endwise, but from experience in both ways, I prefer planting them horizontally, and placing the pieces in the form of a triangle. They may be planted either in fall or spring, but if done in spring, as is the common practice, it should be done as early as the state of the ground will admit, which will be several days before it is time to plant corn.

We generally plant our hop-yards the first year with corn, not expecting any returns that year from the hops, as they require one season to get vigorously and firmly rooted, and in this way we obtain just three-fourths of a crop of corn, letting the hops occupy the rest of the ground, and hoeing them as often as we do the corn.

Nothing pays so poorly for half-way cultivation, as hops, and the farmer who would realize profits by them, need have no fears of cultivating them too highly.

After the yard is ready to pole, the first thing to be done in spring, is to remove the manure from the tops of the hills, and as soon after as the frost will permit, the poles should be set. Where the hills are only five feet apart, the poles should be set perpendicular—where they are 7 by 8 feet apart, they are set two to a hill about one foot apart on the hill, as they run from north to south. They should also incline a little from the hill so as to divide the space at the tops, and this will prevent the branches from becoming entangled with each other.

Yards do not generally need grubbing the first year they are polled; but after that they need grubbing annually. The runners before spoken of, are then taken off near the hill, as they will otherwise take the sap that should go to the vine. Immediately after grubbing, a man with his team and load of manure should follow, and into the trench formed by grubbing, should place a little fresh and strong manure. A boy must follow with his hoe, and cover up the manure just laid down. This is called priming, and is the last manuring they get for the season. The act of grubbing, it will bo observed, not only clears the hill of unnecessary roots, but cleanses it, and leaves it all fresh. It will remain so till the vines begin to need tying, and this should be begun as soon as any are long enough to reach the pole, and be continued from time to time as they may need, until they reach the top of the poles.

In the mean time, a good deal of trimming is necessary, as no pole should have more than two good vines to run on it; all extra vines must be cut off, and any other little intruder that makes its appearance on the hills must be plucked up.

In addition to this, the ground must be plowed, cultivated, and hoed several times during the summer—at least sufficient to keep the land mellow and free from weeds, for nothing is so unsightly as a hop-yard all grown up to weeds. Care should be taken not to haul dirt to the hills, but to keep it away, and leave the vine nearly or quite bare, where it unites with the root, during the early part of the season, as the grub which eats off the vine just at the surface of the ground, will be doing his work then. The grub generally does his work and disappears in the early part of July, and then the yard should be hilled, which is about the last thing to be done before picking.

I have now given you the details of raising hops up to the time of picking, as practiced by myself and many others; if this should in some degree serve your purpose, and you think it would be of service to your readers, I will in some future number, send you another article on picking, drying, preparing them for market, cost of cultivation, &c. AN OTSEGO HOP-GROWER.

We are greatly obliged to our correspondent for the preceding, and shall be glad to receive the article he promises in relation to finishing the crop.

The Cultivation of Wheat on the Prairies.

MR. TUCKER—The more I have investigated the prevailing systems of cultivation and management given to prairie land for the wheat crop, the more convinced have I become, that the Upper Mississippi valley is destined before the lapse of many years, to become one of the most successful wheat growing portions of the world. The prevailing notions of farm practice will, however, have to undergo vast changes, before any material improvement need be expected. I hold that every intelligent mind, who has given up his life and study to carrying out the practical details of agriculture, can do something towards ameliorating and elevating the present condition of American agriculture; and hence I am disposed, in common with many hundred other co-laborers, to snatch every idle moment that presents itself, for the purpose of presenting some useful suggestions before my fellow farmers, that may prove profitable and acceptable, and afford them some "*material aid*" in removing the numerous mysteries that seemingly enshroud the ancient and noble profession of agriculture. In this, as in all other reforms, innovations are subject to severe criticism; but no great physical change can be effected in any department of science or arts, without the use of means that will surely and forcibly remove existing barriers, and build up in their stead, a sound and philosophical structure. Now, in regard to the practical business of wheat growing in Illinois, Missouri, Iowa, and Wisconsin, I have become satisfied that the existing difficulties that prevent the successful culture of wheat, may be surmounted, and in process of time, what is now considered a doubtful business, may be converted into a safe and profitable operation.

Among the many things to be done in this matter, is the making of naked fallows. This is advisable on many accounts, and where much or little wheat is sown, a naked fallow, consisting of at least one-third the area to be sown, should be made. Deep plowing, by which a liberal share of the clayey particles in the subsoil is brought to the surface, is important in the second or midsummer plowing; and instead of sowing the seed on a flat surface, the ground should be plowed into narrow ridges, and if possible the seed sown in drills, at the rate of from seven to eight pecks per acre. Clover culture is more required on the prairies, than even on the New-York oak openings, but the effects required to be produced on the former, are materially different from what is necessary for the latter. The soil on the prairies requires to be acted upon mechanically by frost, sun, and air, and the percolating influence of clover, or any other tap-rooted plant, will produce the required change effectually, and at a very trifling cost. A clover sod, to be in the best possible condition for wheat, in a prairie country, should be broken up the second year in July, and the last of August plowed the second time, for seed, and the ground then will be cloddy, and in the very best condition for seeding, securing the speedy germination of the seed, and a strong and healthy growth of plants, both of which are of the greatest consequence.

If the plowman be expert, and can turn a well proportioned furrow, and make his work uniform, one plowing for a clover sod is sufficient—but it should be done one month before sowing, to impart to the surface a suitable mellow condition for the seed, and also that portions of the sod may break up and remain on the surface, by the action of the seed harrows, thus securing the same object sought by the second plowing. Sowing wheat among standing corn is an excellent practice when done by competent workmen. The most successful plan will be found by planting the corn in rows five or six feet apart, and the hills in the rows two feet apart. The plowings, horse hoeings and dressing with the steel tooth cultivator, will all require to be done in one direction across the field, and not in right angular rows, as is the common practice; and before the wheat is sown, the ground should be made level with a steel tooth cultivator or harrow. The time for seeding should be the last of August; the quantity sown per acre two bushels—and the seed should be plowed in, putting the whole field into lands the width of the rows of corn. The stalks may remain on the ground during winter, and about the first of March be chopped down, and allowed to remain on the surface. W. G. E.

Professional Education of Farmers.

L. Tucker, Esq.—I congratulate you, my dear sir, on the advent of your "Country Gentleman," and for one, desire to extend to him the right-hand of social fellowship. Coming, as he does, with a letter of credit from you, it is presumable that he is, indeed, a real gentleman—a man of education, of good social and moral habits, and a man of business. Although the popular idea conveyed by the term "gentleman," is that of an idle man, a man of leisure, a man that is not obliged to attend to any kind of business for a living, I do not so understand the term, but rather as I have defined it above. But the "*country* gentleman" is, or ought to be, the perfection, the highest grade of the human family in private life; and, as a general rule, he generally is so. I have mixed much with all classes of society in this country, and can say frankly that I have met with more genuine gentlemen in the country, on farms and plantations, than in cities and towns. I have found but one fault in all my intercourse with country people, that is calculated to degrade them, and that is almost universally prevalent; and so long as it does prevail it must continue to degrade the profession. It is the absence of a proper *esprit du corps*, and in its place, a longing desire for other professions. They "look *down*" upon their own profession, and *up* to every other. They educate their sons for lawyers, doctors, divines, merchants; and those who cannot be thus educated, educate *themselves* for farmers, *as it happens*. Is not this the truth?

Now this must be reformed entirely. Farmers must be ambitious of becoming great farmers instead of great lawyers and doctors; and farmer's sons and daughters must be enabled to see in their father's profession, a station and standing sufficiently exalted to satisfy their highest ambition. But how can this be accomplished? By a proper system of education. At present the great end and aim of of education is what is called professional—that is, the student is being educated for a lawyer, &c. Take the catalogues of Yale, of Harvard, or of any of our colleges, and where you will find one student preparing for an agricultural life, you will find five hundred preparing for other professions. If a farmer has two sons, and the one exhibits a modicum of intellectual "smartness," and the other the same amount of dullness, the former is forthwith sent to the law school, the latter to the barn-yard.

Among all that has been written on the subject of education of farmer's sons, I have not seen what I consider the proper idea inculcated. It is true, we are continually furnished with essays recommending the establishment of agricultural schools, colleges, farm schools, &c., but they do not contain the germ from which the future tree must grow. Legislatures must not be looked to, to establish schools. Farmers must establish them themselves. Lawyers and doctors and divines, establish their own schools, and why not farmers? These professions would fare poorly, just as the farmers do, if they were to depend upon the legislatures to establish medical colleges, &c., for them. No, they first put their shoulders to the wheel, and then call upon Hercules. But the great idea, so universally overlooked, is, that the farmers must first appreciate the respectability, the gentility, of their own profession, before they can be induced to take the proper measures to ensure a thorough professional education for their sons. They must cultivate a spirit of respect for themselves and their profession; and consider no other class of men, no other profession superior or more respectable than their own. They should do as other professions do, associate and consult together upon their own professional affairs; establish schools and colleges for the education of the young; and, in fact, do as all other professions do to advance their own interest.

Let us sketch a plan of education, and as a model we will take the medical profession. What does a man do who has a son that he wishes to become a doctor? He selects some good physician, and puts his son with him to study, two or three years. This is to give him a theoretical knowledge of the rudiments. The physician will instruct him as to the books he must read, make him acquainted with the minor practical duties of the profession, and give him opportunities for such practice as may be considered proper. This is an apprenticeship. After a proper length of study in the office, he is sent to the medical college, where he completes his theoretical studies, and has the advantage of the clinical practice in the infirmary or hospital, and at a proper time, after sufficient study, he receives his diploma.

Now, farmers should do the same with those of their sons they intend for farmers. They should instruct them in the principles as well as the prac- of their art; they should put books into their hands to be studied; they should, in fact, be carried through a regular apprenticeship. When they have gone through with this preliminary study of theoretical and practical farming, such as can be given them at home, or with some respectable farmer, they are prepared for the higher school studies. Every county should have at least one high Agricultural School, established and supported by the farmers, both in the science or theory, and practice of agriculture. Until the farmers adopt a system of this sort, it is impossible that they can ever attain to that high professional standing that is enjoyed by other professions.

What, let us ask, is the system at present in vogue? The boy grows up on the farm, and sees as little of the farm-work as he possibly can. No one explains to him the why and because of any operation. If his parents are able, he is sent to some neighboring school, where he learns to read and write, and possibly to "cypher" some; but he learns to envy the condition of the schoolmaster, the clerk in the store, the doctor's students, and the lawyer's young men, and to hate the idea of returning to the work of a plain farmer. Here is the root of the evil, and I do not see how it is to be eradicated, except by a radical change in the school system, and in the minds of the farmers themselves, as to the standing and character of a farmer's profession. If the young be induced to consider the profession of a farmer as dignified and "*genteel*" as that of any other class, they would not so readily imbibe a dislike for it. This can be accomplished by a proper systematic course of instruction at home, and by schools properly instituted and managed.

As a general rule, every class of people enjoy precisely the character and standing in society that they themselves select. If the members of any profession, as a body, select a high grade of standing, and use the means for attaining it, they must and will occupy it. But if they merely look upon this high grade with an envious eye, and take no measures for securing it to themselves, they will most assuredly never attain to it. There is a very prevalent idea among practical working people, that *other* people look upon them as a degraded class. In all my experience, I have found this idea to have originated with themselves, and that the other classes, without their suggestion, would never have thought of such a thing. Self-respect should induce every man to put a proper estimate upon his own claims to the respect of others, and preclude the idea that any one else *can*, much less *does*, underrate them. G. B. Smith. *Baltimore.*

We hope our readers will "read, mark, and inwardly digest," the above remarks. The suggestions are important, and worthy the consideration of all who desire the elevation of agriculture to the rank of a "profession." Eds.

Protecting River Banks.

Mr. Editor—As my premises border on the creek, the Onondaga, I have been troubled somewhat by the action of high water, and especially where the force of the stream is turned upon the banks by sharp curves and angles. Not unfrequently when the frost is in the ground, a freshet will transfer some rods of "real estate" to one's neighbor, who owns the land on the opposite side of the stream. To prevent this involuntary transfer, those holding the fee simple below me, have resorted to planking the exposed banks, though with but partial success, and with very considerable expense. I adopted a mode last season, which so far proves entirely successful—one that is attended with but trifling expense in any respect, and one that may prove advantageous to your readers similarly situated.

The work to be well done, should be performed when the water is low. Commencing at the water's edge, drive a row of stakes, of almost any material, about four feet apart, pointing up stream at an angle of some 45 degrees. At two or three feet from these drive another row in the same manner, the stakes alternating with those in the first row, followed by a third and fourth, where the banks require. Between these stakes, *brush* is laid in evenly and well tread down, receding from the water to the top of the bank. The brush should be laid in evenly and compactly, as well to break the force of the water, as to hold the mud, leaves, &c., and thus to form a solid bank. By pointing the stakes up stream, the force of the water forces the brush under them instead of its being lifted and floated off by the current.

Over that portion of bank thus secured last year, I put on some coarse gravel which I had, and had no better place to put. There had been two freshets, however, before the gravel was applied, and the brush barrier remained firm through their action. This season the brush is nearly out of sight, imbeded in sand and mud. The experiment is deemed entirely successful.

In connection with this subject, I remember the inquiry of A Subscriber, some time ago, how to protect his banks from the bad effects of muskrats, or how to destroy them; and the directions given were to catch them in steel traps! Pardon me, but I think the inquiry and the answer equally simple. Anybody who knows anything of the habits of this animal, knows that in rivers, &c., they burrow under high and steep banks, digging their holes from low water mark to near the surface of the bank, and often with an outlet on the land side. These holes form ready channels for the water in freshets, and are often the cause of much damage. As a better remedy for this evil than steel traps—which is effectual enough, provided you *get their foot in*, to destroy or drive them away—I would recommend breaking down the banks, sloping them back at an angle of 45 degrees. After such an operation, I will guarantee that the muskrat will *vamose*. This, too, I think, by well seeding the bank in the early part of the season, so as to give time for the grass to become well rooted before the season of frosts and freshets, will secure them from washing, with a little attention to points where they become undermined below low water mark, with the *brush* barrier, as above recommended. Yours, &c. T. A. S. *Syracuse, Nov.* 30, 1852.

◆

Good Management of Cattle.

S. P. Chapman, of Madison Co., is well known to every reading farmer in the country, for the whole columns of prizes which his fine cattle have swept from the premium lists of the New-York State Ag. Society. A man who knows so well how to get possession of the best animals, will be likely to know equally well how to take care of them after he gets them. We therefore copy the following from the Transactions of the N. Y. S. Ag. Society, for the benefit of those who have been too much in the practice of suffering their cattle to take care of themselves, and which will be more appropriate especially at the present season:

"All the cattle have 'good care' *every day* in the year. They are housed in the autumn as soon as the atmosphere becomes cold, and are fed on hay, corn stalks, pumpkins, &c., &c. When the winter is fairly set in, the grown cattle have a feed of hay in the morning, and a portion of carrots to each, as long as the roots last; they are then let out to water and exercise, during which time the stalls are cleaned and fresh littered. This duty requires about an hour. They are then housed again, and supplied with oat or barley straw, being also well *brushed and curried*. At two o'clock P. M., the mangers are cleared out, which affords litter, and a fresh supply of straw is fed to each. At night they are again watered, the stalls are cleaned, and have a feed of hay and straw mixed. Toward spring they are supplied with as much hay as they will eat, and carrots are given more freely. The hours for feeding are regularly the same, and it is very noticeable that when the food is consumed, they will lie down on the clean litter, not caring to rise until the approach of their next feeding hour. Salt is always kept within their reach. An addition of four quarts of oat meal is daily given to such cows as are expected to calve within the period of two weeks. The calves are at all times carefully attended to. They are kept warm, well littered, and well fed. They have two quarts of oat meal per day, a few carrots, and as much hay as they can consume. Such is also the general outline of Mr. Osgood's system, and of most careful farmers."

Breeding Poultry—The Dorkings.

Dear Sir—In looking through the last Cultivator, I observed an inquiry about Dorkings, which you refer to some one more conversant with the subject than yourself. Without assuming that position, I will venture to offer you a few remarks, based upon my own observation and experience.

It must have fallen under the notice of all breeders, that small accidental variations are to be met with in the purest bred families of domesticated animals, and when thought desirable may be so taken advantage of as to become an established feature. Such, for instance, has been the case with certain families of the sheep-dog, which are now born with only the rudiment of a tail. The yellow and variegated color of the caged canary bird is another instance, which, in its wild state, is green—so with the English rabbit, which, before domesticated was uniformly grey, but is now bred of various colors, and with what is termed a "dewlap"—and more striking still are the numerous peculiarities which have been added to the "Fancy Lops." All these deviations from the originals, are unquestionably the result of selection with intent to render them hereditary, and that, too, without any interference with purity of blood. On the contrary, when varieties are produced by cross-breeding, purity of blood is of course sacrificed, and it will be found that the departures are uncertain; unconfined to any one point, and often destructive of some valuable property.

Now, as to the inquiry of "A Subscriber," I should have no question as to the purity of his birds, notwithstanding the scalp-feathers he mentions, if they *uniformly* and *undeviatingly* possess *all* the other characteristics of the breed.

When Mr. A. B. Allen (who appears to have taken great pains in obtaining the Dorkings he brought over with him from England,) sent me the birds I requested him to purchase for me, one of them was slightly crested; and, at the time, liking the appearance, I soon, by care and selection, bred up a yard of such fowls. I have three distinct *yards*, not divisions or pens, but three *farm-yards*, of pure Dorkings, *each family* possessing a *distinctive* feature, and a most *striking uniformity* of form and feather, with all else belonging to the Dorking. This of itself, to a breeder's eye, would be evidence enough of their purity; but it so happens that every bird is descended from fowls imported direct from Surry, either for, or by myself; and as I keep no other variety, from the fear of an accidental cross, they can hardly have lost their purity in my hands. I presume, if desired, that scalp or crest might, by *selection*, be increased to a crown or top-knot, and yet the birds retain all their purity.

Before leaving this subject, allow me a word or two on the absurd attempts made some time since, to claim *exclusive* purity of blood for the White Dorking, and to rule out, as impure, all colored fowls! I was a school-boy in Surry, the land of the Dorkings, and passed many a holiday at Berry Hill, (then the seat of the late Robert Barclay, Esq.,) situated close to the village of Dorking, and, as might be supposed, the peculiar fowl of the country was here to be seen in its highest perfection, but they were of various colors, white, brown, and speckled.

What does John Timbs say in his "History of Dorking and its Environs," published many years since, page 100, of the second edition?

"There is also a breed of fowls with five claws, well known among poulterers in the metropolis, by the appellation of Dorking fowls; one sort is perfectly white, and another of a partridge color. Columella, in his Husbandry, describes fowls of this kind; and it is conjectured that they were originally brought here by the Romans."

Again the engraving of the "True Dorking," as put forth in the *prize essay* of the Royal Agricultural Society, on poultry, is a *richly colored* bird, with a double or rose comb.

At the yearly exhibitions of poultry in the Zoological Gardens, are to be seen Dorkings of various colors, with only now and then a cross of white birds, all eligible for premiums. Yours truly. R. *Morris, Otsego Co., N. Y., Nov.* 17, 1852.

A Decided Specimen of Book Farming.

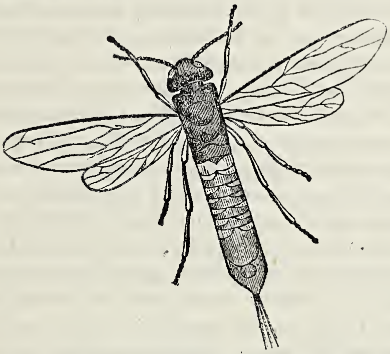
The report of John Harold, corresponding secretary of Queens county, furnishes us a speci- of the success of a man, who dared to look deeper into the furrow than the horses who drag the plow through it, and who boldly broke through the brick-like, hard-pan crust, three inches below the surface, and over which the share had passed from time immemorial.

"I have before me," says J. Harold, "the diary of a farm so worked, the character of which was, 'that hay enough could not be raised on twenty acres to keep a horse.' The owner of this land became a member of our society; a new impulse was given to his labors, and from having read and heard how otehrs were improving their farms and increasing their crops, he was desirous of doing the same. Eagle D. plow was procured from Ruggles, Nourse & Mason, and in the fall of 1844, a seven acre lot was plowed up ten inches deep. When the first land was plowed, the neighbors came round to see the folly, as they termed it, of the book-farmer. One said he was killing the land in plowing up the yellow clay; another, the lot would not be worth so much as before by twenty dollars per acre; and another, he would find it all out next year. It was, however, all plowed, and pretty yellow it looked. By next spring it had changed to a brown color, and was planted with potatoes, which produced a good crop. Still the neighbors said it would never raise grain or hay; it was quite killed for all that. In Septembr, 1845, it was well plowed, and manured with home-made poudrette; two bushels of white Hutchinson wheat, twelve quarts of timothy seed, and in the spring, ten pounds of clover, sowed to the acre. This seven-acre lot produced the next year thirty-four bushels of wheat to the acre, weighing sixty-two pounds per bushel, and was exhibited at our county fair, receiving the first premium. This was a hard fact to get over; some decided it was all owing to the season, and some, it happened to be sowed at the right time of the moon. The lot has now been mowed five years, and was considered this year the best piece of timothy grass between Hempstead and Brooklyn, (twenty-one miles.")

The town of Hempstead, in the same county, furnished the same year, a crop of potatoes on the fourth of an acre, amounting to 63½ bushels, or 254 bushels per acre. A two-year pasture was plowed *seven inches deep*, and planted with corn, manured with poudrette in the hill, followed the next year with the potatoes after 50 one-horse loads of horse manure. The rows were two and a half feet apart, and the potatocs 10 inches apart in the row. The cost of this quarter acre crop was $17; the net profit over $30, or $122 per acre.

The Pigeon Hole Borer.—*Tremex Columba.*

Mr. Tucker—A few years since, on visiting the garden attached to one of the public buildings of our city, I had occasion to remark the withered and dying condition of a beautiful maple, which for a long period of time had been the pride and ornament of the place; and many were the conjectures among individuals in the vicinity, respecting the cause of its premature death and decay. During the month of August of the succeeding year, when I again visited the spot, the branches had all been broken from the tree, and the bole, to the height of about eight feet from the ground, alone remained, and this was partially denuded of its bark. On the surfaces of these bare and exposed parts were to be seen, promiscuously scattered about, a considerable number of circular holes, averaging about the size of an ordinary goose quill, some of which had their orifices still closed up by the raspings of the wood through which these perforations had been made. Upon splitting off several portions of the trunk, and exposing the internal structure to the sight, it exhibited an immense number of ramifying channels or grooves, diverging in every direction through the wood, and directly communicating with the many openings on the surface of the tree. On a closer inspection, most of these channels were discovered to contain beautiful specimens of a species of Hymenopterous insect in all its various stages of existence, from the ova up to the imago, or perfect state; many of the larva obtained from the center of the tree were observed to be mutilated and dead, exhibiting evident indications, that their destruction had been accomplished by the aid of some parasitical, or egg-depositing insect; the internal portions of what remained having afforded to these depredators, a sufficient nourishment, until they became ready to emerge in a perfect form, to the open light of day. Those that were procured from near the orifices that still remained closed, were all in either a chryslis or perfect state, the former being enclosed in a membranous, soft, and translucent case or covering, through which the entire form and proportions of the insect could with ease be distinguished. On submitting the perfect insect to an examination, I had little difficulty in determining it to be the one here figured, the *Tremex Columba*, (Pigeon hole-borer) of Say.



From various circumstances, I am inclined to believe that the natural habit of this insect is, to deposit the eggs within the bark near the base of the tree; if so, to white-wash the trunk for six or eight feet from the ground, or give it a copious washing with some of the various materials so strongly reccommended by many different authors, and ordinarily made use of for the purpose, together with destroying the female whenever met with, or thrusting a red hot wire into the orifices, and thus causing the larvæ to perish, may, in all probability, effectually protect the trees from any of their future depredations. These grubs are frequently destroyed by the larva of the *Pimpla lunator*, the egg of which, having been deposited in their bodies, while committing their depredations in the heart of the tree.

Tremex Columba is embraced in the second tribe of *Hymenoptera*, and belongs to the family *Uroceridæ*, or horn-tails, so termed in consequence of being furnished with horny points at the extremity of the abdomen. The body of the female is cylindrical, and about as thick as an ordinary lead-pencil, being an inch and a half or more in length, exclusive of the ovipositor, which is an inch long, projecting three-eighths of an inch beyond the extremity of the body. This latter, rounds upwards, like the stem of a boat, and is armed with a pointed or sharp horn. The head and thorax are of a rust color, varied with black. The abdomen is black, with seven ochre-yellow bands across the back, all of which, with the exception of the first two, are interrupted in the middle. The borer, and a round spot at its base, impressed as if with a seal, are of an ochre-yellow color. The antennæ are rather short and blunt, of a rust color, and with a broad black ring in the middle. The wings, when expanded, are two inches and a quarter or more in extent, smoky brown, and translucent. The legs are of an ochre-yellow, with blackish thighs. The ovipositor is of an awl or needle form, and about the thickness of a bristle, with a spear-pointed termination, and black in color; when not in use it is concealed between two narrow side-pieces, which furnish to it a species of scabbard or sheath.

The male is not furnished with a borer, and is extremely unlike the female, in color, form, and size. The color is that of rust, variegated with black, with the antennæ of a dark rusty yellow. The wings are of a smoky tinge, but much clearer than those of the female. The abdomen is rather enlarged behind, somewhat flattened, and terminates with a conical horn. The hind legs are much wider than those of the females, flattened, and of a blackish color; the remaining ones are of a rust color, more or less shaded with black. The body varies from three quarters of an inch to one and a quarter in length; and the expansion of wings, from one and a quarter to two or more inches. The larvæ is of a cylindrical shape and of a yellowish white color, with a rounded termination and a horny point on the upper portion of its extremity. It is an inch and a half in length.

In the months of July and August, these insects may not unfrequently be met with in some considerable numbers, the females employed in depositing the eggs in the wood of the trees on which their larvæ feeds; and the males, hovering leisurely about, as if for the purpose of inspecting the progress of the operation. This is accomplished by the female in the following way: After selecting the desired spot, she elevates the abdomen, and curves its extremity in such a manner as to bring the ovipositor in a perpendicular position directly beneath its center, then by a series of wriggling motions, plunges it about the distance of an inch and a half, or more, through the bark, into the solid wood, and in this orifice plants a single egg. The larvæ, on being hatched, gnaws its way into the heart of the tree, for some six or more inches in depth, and there remains securely, committing its depredations, until the period arrives for its change into the chrysalis state, and in no great length of time after, to emerge into its perfect form, again fully prepared to renew the process of regeneration. JAMES EIGHTS. *Albany, Dec.* 1, 1852.

* * *

HEAVY WHEAT AND OATS.—At the late Provincial Exhibition of the New-Brunswick Ag. Society, the prize for the best sample of Wheat, was awarded to a bushel which weighed 68½ pounds. There were five samples which weighed 67 lbs., and more than 20 samples weighing from 63¼ to 67 lbs. The prize Oats weighed 53 lbs. to the bushel, and 14 other samples weighed from 46 to 52 lbs.

Horticultural Department.

Native and Foreign Fruits.

Men generally have a remarkable proneness to extremes. Some years ago, a few of our most eminent pomologists, with great liberality and enterprize, imported largely of foreign varieties of fruits, among which were new sorts of pears by hundreds. Some of the hundreds proved quite valuable, and many more became at least fashionable, and nurserymen and cultivators generally throughout the country, eagerly sought these new sorts, to fill their catalogues and to plant in their grounds. A foreign name, thickly peppered with French accents, became of itself almost sufficient to recommend the sale of any new sort.

But this fashion had its day. Cultivators came to find, after the first varnish of novelty wore off, that most of these new foreigners were nothing but simple and plain third or fourth rate pears, and most of them, in fact, were rejected as worthless. Just as examples, the reader may look at the history of the *Reine des Pays Bas, Belle et Bonne, Belle de Bruxelles, Colmar d'Aremberg*, and the *Great Citron of Bohemia*. The trees which had been brought at great expense, "a thousand briny leagues," became indeed absolute nuisances, at least many of them, and they were replaced with others having such simple home-spun names as Bloodgood, Buffum, and Dix. The current now set entirely in favor of the Native American party; all foreigners were regarded at least with suspicion; and we have even seen, in one of our horticultural journals, those old European varieties, the Virgalieu and Bartlett, designated as *American Seedlings*, on account, undoubtedly, of their hardiness and fitness for our soil and climate.

We could never perceive why the seed of a pear grown on and dropped into the soil of France or Germany, should produce a sort, unfitted, essentially, to a similar soil and climate, in a different longitude. The truth is, some of our hardiest and most vigorous trees, bearing the heaviest crops of fine, smooth, and valuable fruit, and uniformly succeeding in a large portion of our country, are of those sorts whose origin happened to be on the other side of the Atlantic. Among these we may name the Flemish Beauty, Louise Bonne de Jersey, and Vicar of Winkfield pears, and the Gravenstein and Astrachan apples.

As a general rule, the known native fruits of any country, are best adapted to that country—and why? Because out of many thousand seedlings, they have been selected as the most fitted to that peculiar region—experience showed them the best adapted to it—but there might have been many others among those thrown aside, better adapted to other parts of the world. This opinion is proved by the fact that some foreign fruits are actually better here than in their native localities.

Every fruit-grower is aware that certain fruits succeed in one place and fail in others; and that the same sorts are more likely to succeed in contiguous districts, than in such as are widely separated. But a difference of latitude is usually far greater in its results than a difference in longitude. Hence the northern and southern portions of the United States, as for example, New-England and Carolina, may be far more unlike than corresponding portions of Europe and of the Northern States.

Experience, after all, and not mere general theories, must decide the fitness of all fruits for cultivation among us; and as an index to the result of this experience, we point to the selected lists of the American Pomological Society. These lists are made up promiscuously of American and foreign sorts. It is often asserted that we are obliged to take a part of the foreign sorts from necessity, our country being yet in the infancy in the propagation of sorts. This is quite a mistake; among apples, for instance, we find most of our best sorts of American origin, simply because America exceeds beyond comparison all Europe as an apple-raising country; neither has it been much behind other countries in regard to time, for it was not a long period back, that the whole catalogue of European apples was a very meagre affair. Of *Pears*, the select list of the American Pomological Society, gives us more than twice as many foreigners as Americans, because pears in Europe stand more nearly than apples an equal chance with us, and hence the efforts there made in raising new sorts, exceed ours, although we have not been asleep on this subject. Our peaches are nearly all of our own producing; our cherries mostly are borrowed from our neighbors across the water.

The opinion to which we more particularly object as erroneous, and to controvert which we make these remarks, is, that there is a certain degree of *inherent* feebleness or unsoundness in all varieties of foreign origin, and that it is unsafe to adopt them for extensive cultivation; and that American varieties alone possess sound constitutions, and are therefore only fitted for long endurance. We believe this notion to be fully disproved by the fact that a large portion of our best and thoroughly proved standard fruits are of this class, among which we may name the Madeleine, Flemish Beauty, Louise Bonne of Jersey, Urbaniste, Winkfield, Beurre d'Anjou, Bartlett, and

Winter Nelis, among pears; and Black Tartarian, Elton, May Duke, Black Heart, and Black Eagle, among cherries. We will not adduce the extraordinary success which has attended the cultivation of that celebrated old French pear, the White Doyenne or Virgalieu, in large districts of the Union; for the cracking and failure of this pear in some other districts, is pointed to as a proof of the comparative worthlessness of imported varieties, nothwithstanding that some recent American pears have been found to crack quite as badly at the same places, and in the very neighborhood of their origin.

Interesting Facts in Fruit Culture.

The Reports of the State Fruit Committees to the American Pomological Society, at its late session in Philadelphia, contain many valuable facts, some of which we present to our readers.

Mulching.—In the Report from Maine, the committee state that very little rain fell throughout the entire summer months, and that the value of mulching has been seen in an eminent degree in the case of newly planted trees, which made a fine growth; while of those not so treated, many failed, and others barely survived.

Period of Ripening—The same report informs us that heat and drouth have caused some pears to ripen prematurely and irregularly, so that on the first day of autumn they had ripe at once, Dearborn's Seedling, Rostiezer, Bartlett, Beurre d'Amalis, Belle Lucrative, Flemish Beauty, and others.

Curculio.—In the neighborhood of Bangor, Me., we are assured the curculio appears to have suspended operations, at least for the past season. Now, it would be exceedingly interesting to some of us in other places, where these indefatigable little scoundrels place their death-stamp on every thing they can find, to know the cause of this escape—perhaps if we knew, the thing might be done again.

Baldwin Apple.—We observe the same complaint, noticed by other observers, of the great liability of the young trees of this otherwise admirable apple, to be winter killed in this northern locality.

Pears in Maine—It has been found by the use of the Angers Quince, and a careful selection of sorts adapted to it, that many varieties can be grown in the highest perfection, which either entirely failed on the pear root, or would not repay the trouble and cost of cultivation. Among those mentioned, the Bartlett has been found hardier on the quince—the Winkfield good, often very good, improving with the age of the tree—and can be grown cheaper per bushel than any other pear. The Seckel proves a failure in four cases out of five, the trees neither growing nor bearing. The Flemish Beauty, (grown only on pear stock,) "combines more good qualities than any other pear," a character it is likley to assume in other states.

Gooseberries.—Houghton's Seedling bids fair to surpass all others in value. Its three great points of value, are 1, its free growth and facility of increase; 2, its profuse productiveness; and 3, its perfect freedom from mildew. The Maine Report informs us that Joseph Sinclair of Levant, purchased in 1848, for 25 cents, one plant of this variety—which he has increased by layers and slips, so as to sell over *fifty dollars worth since*, besides a hundred plants now on hand. Prof. Turner states in the Illinois Report, that Gooseberries, (English,) do well with him, "when well pruned, manured, salted, and mulched, in early spring, *never without.*"

Northern Spy in Vermont.- The Report states, that this apple is "not yet fully proved, but no apple grows better, or appears more hardy. Fruit this season fair, and looks as well as any sort whatever—has not fruited before in this state, except a few specimens."

Red Astrachan.—In Maine this apple is thought to succeed even better than in other parts of New-England; in Vermont, it is "hardy and very fair;" in New-York, its value is well known; the report from central Pennsylvania states that it is "acid and dry."

Northern Autumn Apples.—The Duchess of Oldenburgh and the Gravenstein, are both spoken of as succeeding admirably throughout the northern regions of the Union—the latter as perhaps the best autumn apple of Vermont. An interesting fact as to the season of ripening of the Gravenstein has just been related to us by Major PATRICK, of Sacket's Harbor. The neighborhood of his residence is raked in two directions by the piercing winds from the north, and across the icy portions of Lake Ontario from the west. It is a severe climate for fruits. The result is, that the Gravenstein has become a *winter* apple, good and well kept specimens of which he has eaten in spring.

Fruit for Family use.—W. G. Waring, of Center Co., Pennsylvania, says that a family of eight persons, having free access to fruit during the entire season, consumed *three bushels* of apples to one of wheat, with a corresponding proportion of other fruits, with the greatest advantage to their health. There is at present, a very feeble approach to such a supply for the whole country.

Swine for the Curculio.—The same writer states, that the plum crop, when unprotected, is usually entirely destroyed by this insect—but that keeping swine in the plum yard, after five years trial, proves very successful. J. C. Holmes, of Michigan, saves effectually his rarer sorts, by bags of mosquito netting.

Smokehouse Apple.—For Pennsylvania generally, and for some parts of Virginia, the Smokehouse Apple is spoken of in the highest terms by many cultivators; the growth of the tree in the nursery is, however, pronounced crooked in the extreme. The Republican Pippin is reported to be a poor bearer.

White Doyenne in Delaware.—In the excellent Report on Pears, by E. TATNALL, of Delaware, we are informed that this variety, on pear stock, is an entire failure, cracking before half grown, and becoming perfectly worthless; while the tree is more subject to the blight than any other. (This latter defect is the more remarkable, as in Western New-York, and some other regions, where it succeeds so well, the tree is unusually free from blight.) On quince stock, in wet or cold soils, it is no better; but on high, dry, and rich soils, it is almost wholly free from crack or blight, and grows vigorously. This disease is the same (on pear stock,) from whatever source the trees are received; while cases have occurred where trees on quince have been all received from the same nursery, and were modified into good or bad, entirely in conformity to the soils on which they were placed—all showing conclusively that the diseased stock theory is incorrect.

Productive Strawberries.—Joshua Pierce, of Washington, furnishes the statement of John Slater, of the amount of a crop of Alice Maude Strawberries. This variety is stated to be at least twice the size of Hovey's Seedling, at that locality. The bed contained about 30 square rods—it furnished about 40 bushels of strawberries, (over 1,200 quarts,) or at the rate of 213 bushels per acre. The rows in the beds were 2 feet apart, and the plants 8 to 12 inches asunder in the rows; and they were kept clear of weeds and runners.

Severe Cold in Virginia.—The report of Yardley Taylor, of Loudon county, states that the thermometer sunk there, the past winter, to 10° to 14° below zero, destroying at least one-half the peach buds.

Prof. Turner's Theory of Pear Blight.—The professor comes out again at some length, in defence of his position, advanced some months since in the horticultural journals, that the pear blight is caused by a peculiar insect. Further observation satisfies him that he is correct so far as that region of country is concerned. A remedy, founded on his observations, he hopes, (and only hopes,) may prove of lasting efficacy. Trees on his own grounds, "promptly treated with soap and tobacco water, spirits of turpentine and lampblack, are thoroughly restored; while a single row, omitted for want of time, until the insects had hatched and gone into the bark, is still as badly diseased as ever. On the contrary, one gentleman, one mile from me, omitted all care of his trees; they were about 10 or 12 inches through, and the finest in the country. But they are all now dead, or worse than dead. Another gentleman, two miles distant, sceptical at first, applied whale-oil soap to the blighted trees, with a caustic alkali to dissolve it afterwards, and all his trees are now, as he informs me, perfectly free from blight." Soap suds, it is stated, effected as great a change in an apple orchard. These are very strong cases, so much so as to induce a shade of fear that Prof. Turner may have been deceived. At all events, we do not see the necessity of a *caustic alkali* to dissolve whale-oil soap, as we have always found *water* alone quite sufficient. Whatever effect turpentine and lampblack may have had, it would be very imprudent to leave this mixture for a long period on the trunks of trees in the State of New-York, as the hot sun on the lampblack combined with the influence of the turpentine, would, to speak colloquially, soon "finish the job."

◆

Species and Varieties Explained.

In the Review of Thatcher's American Orchardist—(old) Genesee Farmer, vol. 4, p. 65, the following quotation occurs: "Trees raised from seed, rarely produce the same *species* of fruit with that from which the kernels were taken;" to which the reviewer appends these remarks:

"We are the more willing to notice this sentence because the writer is not alone in the misuse of the word in italics; and we recommend it to all those who have occasion to write on the subject of plants, to learn the precise meaning of the words, *species* and *variety*. It is well worth a study of five minutes. All the plants that originate from the same kind of seed, untainted by adulteration, are of the same *species*. Thus the seed of the common apple never produces a pear, a quince, or a crab; but seeds of the common apple produce different trees that *vary* in the qualities of their fruit, the size of their leaves and the appearance of their branches,—as the Fall Pippin, the Russett, and the Spitzenburgh. These are *varieties*."

It is now more than eighteen years since I wrote that review; and think it might be useful to repeat those precepts. To florists, I would give another view of the subject,—first presenting N. Webster's definition: "*Species* are capable of uniform, invariable, and permanent continuance by natural propagation. A *species* may include many *varieties*."

Thus the oriental *species* of Hyacinth (*Hyacinthus orientalis*) has run into hundreds of *varieties*, some double, some single, some white, some red, some yellow, some blue, and some purple; and a similar remark, with not more than one exception, may be made respecting the common *species* of Tulip (*Tulipa gesneriana*), and its uncounted *varieties*. Some *species* of Pæonia have also several *varieties*, as *P. officinalis* which has produced the old double crimson, the double roseate, and the double changeable, or *albicans*, besides many other *varieties*. So also *P. albiflora*, while it retains its *specific character* under every change,—has given us double and single *varieties*, varying from deep red, or purple, to the purest white. DAVID THOMAS. *Greatfield*, 12 *mo.* 2, 1852.

Rural Culture.

TRIMMING EVERGREEN HEDGES.—The American Arbor Vitæ, called White Cedar in Western New-York, endures shearing better, perhaps, than any other evergreen. We have seen a hedge of this tree on the grounds of J. P. Cushing, of Watertown, Mass., fourteen years old, and kept sheared down to five feet in height, which was so smooth and dense as to appear like a perfect wall of verdure. The *red* cedar usually suffers under the shears, or does not thicken well below. Without shearing, it makes a beautiful screen. Hemlock shears well. Balsam and Norway firs may be shaped by pruning, but should not be sheared closely.

Insects in the Soil.—Soils sometimes become filled with insects. Salt, at the rate of 8 or 10 bushels per acre, has been recommended; but a better way, and especially on old, much worn clay gardens, is to *burn the earth.* It may be accomplished by procuring a large quantity of chopped brush, and covering layers of it with a few inches of the soil during the driest part of autumn, and then setting fire to the whole. A mixture of old straw will assist the combustion. Independently of the destruction of the insects, the improved fertility of the soil will be of great value.

Buckthorn Hedges.—To do well, these must be planted in rich, sub-soiled or trenched land, and be kept cultivated. By such treatment, a few years will make a very stiff hedge. Without it, we have seen a hedge continue for years, making but little growth. Hedges, which would otherwise have been good ones, have also been spoiled by not shearing them *narrow at the top;* the full breadth being permitted above, shaded the lower part, and it consequently became thin and leafless. The Buckthorn must not be planted in very shaded situations; we have seen many failures from this cause alone, at Brookline, Mass., and in other beautifully shaded rural places.

Rapidly Growing Trees.—Perhaps the most rapidly growing *evergreen* is the Norway Fir—much exceeding in this particular the Balsam, Arbor Vitæ, or White Spruce. On a deep, good soil, it often shoots up four or five feet in a season. The White Pine is a good grower. Among *deciduous* trees, the Silver Maple (*A. dasycarpum*) is one of the very best, far outstriping the Sugar Maple. The Silver Poplar is scarcely equalled by anything, in the speed with which it expands from a small twig into a large tree; and its glittering silvery foliage is certainly very beautiful. But it throws up suckers beyond all endurance, if near a dwelling or garden, and must therefore be very sparingly introduced, and be planted remote from cultivated ground, where a dozen scores of suckers cannot prove an inconvenience or injury.

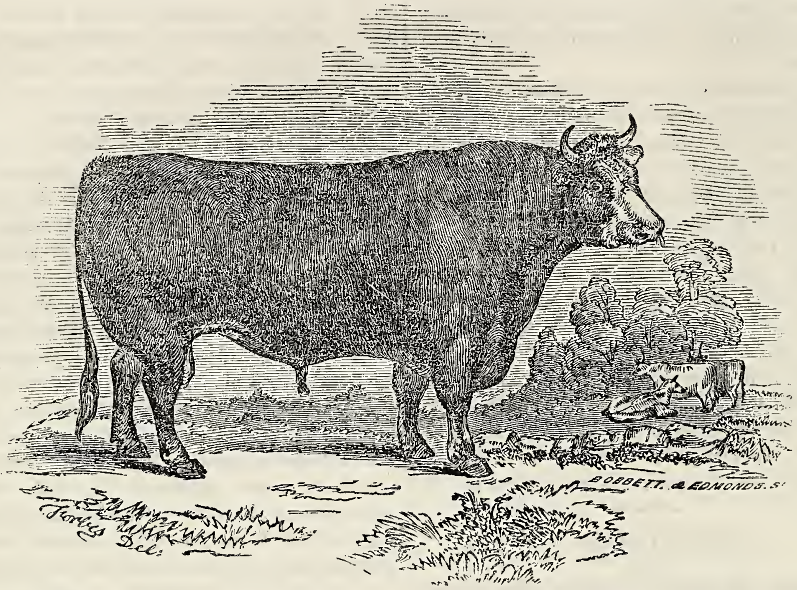
The Four Finest Roses.

The interesting semi-annual report made to the Horticultural Society of the Department of Lower Seine, by A. PERON, its recording secretary, furnishes a statement which will be valuable to rose amateurs. After remarking that rose culturists were formly satisfied with twenty-five sorts, as comprising the whole catalogue, he states that hybridization has now increased this list to at least *three thousand*, from which roses can be had every day in the year by attention to shelter from the cold, heat, moisture, and wind, by transplanting, training, nipping, and by fire heat. But it becomes rather a puzzling test for a novice to make a proper selection out of three thousand different roses, the bare examination of which would occupy him about one whole week, if he should spend but a minute upon each. In order to trim down this great catalogue, an effort was made to reduce it to *one hundred and fifty* of the very first —the first pick—all of which should be real paragons of beauty. Six distinguished judges were selected, and their votes stood as follows:—

4 roses rec'd each 6 votes, or were unanimously approved.
8 " 5 "
26 " 4 "
49 " 3 "
53 " 2 "

The four standing at the head, were *Duchess of Sutherland*, *Geant des Battailles*, *Souvenir de la Malmaison*, and *La Reine.*

EVERY THING IN ITS PLACE.—The man who loses half an hour daily going for or hunting displaced tools, loses 150 hours per year, or about half a month working time.



' Trump," the property of Mr. **Allen Ayrault**, Geneseo, Livingston county, N. Y.,—received the first premium for Hereford bulls over three years old, at the Show of the New-York State Ag. Society, 1851. He was bred by **Wm. H. Sotham**, long known as an importer and breeder of Hereford stock. " Trump " is a capital bull. The figure gives a good representation of him, except that it is too thick and coarse in the buttocks. He is a good constitutioned, well-made and thrifty animal, and would produce stock which would prove well either in the yoke or stall.

Trans. of the N. Y. State Ag. Soc. for 1851.

This, like its predecessors, constitutes a collection of facts, speeches, reports, and essays, of the highest value. Since the publication of the first volume for 1841, there appears to have been a progressive increase in the interest and ability which have characterised their contents; and now, this eleventh volume, of nearly one thousand pages, fully keeps pace with the upward course of the series.

Among all contained in this large fund of rural knowledge, the Essay on the Agricultural value of Phosphate of Lime, by **Joseph Harris**, of Rochester, and the Report of Secretary **Johnson** on the Great London Exhibition, are especially conspicuous. The former is marked with thorough scientific knowledge, combined with clear discriminating judgment, and sound practical application; and the latter is distinguished by an interesting and full account of those objects at the great fair which more particularly interest the American Farmer. In addition to these works, the Agricultural Survey of the County of Madison, by **Gurdon Evans**; the prize essay of **W. C. Watson**, on Sandy Soils; **C. E. Goodrich**'s observations on the Potato Rot, and accounts of of his experiments in the production of new varieties from South American seed; the Reports of the State Premium Farms; and the experiments of **John Johnston**, of Geneva, and of **T. G. Yeomans** of Walworth, on tile-draining—are full of interesting facts and valuable suggestions.

To those of our readers who may not have an early opportunity to examine the entire contents of this volume, an abstract of some portions cannot fail to be acceptable.

Profits of Farming.

The statements furnished of the management of the four State premium farms, serve as a good answer to the hackneyed assertion that farming can never be made profitable, or that two or three per cent is all that can be expected from capital invested in land. The farm of **N. Hayward & Son**, of Brighton, Monroe County, contains 78 acres, 68 of which are "improved." The total expenses are given at $1,470, which sum includes 7 per cent interest on 10,000, estimated value of the farm, that is about *ten dollars interest per acre*, besides all taxes, cost of manure, labor, seeds, insurance, and even newspaper subscriptions. The receipts are $2,726, making the net profits $1,256—that is $18.48 per acre, after paying all expenses and interest. This is better than bank or railway stock. A few of the principal items of this large amount of profits, are the following:—wheat, $404; hay, $106; potatoes, 161; peaches, $460; apples, $162; onions, $214; seed onions, $100; garden and farm seeds, $572, besides many crops of less value. It may be proper to state that the proprietors of this farm are among the best and most intelligent cultivators of fruit in the state, as the frequent premiums they have drawn from the State Society fully prove.

The farm of McCulloch & Kirtland, of Greenbush, consisting of 130 acres of land, chiefly occupied for dairy purposes, is managed at a cost of $1,409 per annum; on which the receipts are $3,358, leaving 1,948 as net profit, or about $15 per acre, out of which interest is to be paid on the land.

Albert G. Ford's farm, in Fairfield, Herkimer county, contains 130 acres, 95 of which are improved land. The manufacture of cheese is the chief business; the yearly cost, $926; the whole receipts, including $1,200 worth of cheese, and $510 of hay, are $2,396, or $1,460 net profits. This is a net return of eleven dollars per acre for the whole farm, or over $15 dollars per acre for the improved portion.

Now, such statements as these, (and we could furnish twenty more not unlike them from our own knowledge,) ought to convince all those who place the highest net profits on farm investments at three per cent, either that they are deficient in mental abilities, or have never informed themselves of the best modes of farming; and we advise them to buy at once this volume of Transactions, and read over carefully the statements of the admirable management of these premium farms, and see if they cannot make some improvement on their present superficial, skinning, earth-robbing system.

A Specimen of Neatness and Order.

Jefferson county has been long celebrated for its agricultural intelligence—at least of that most worthy portion of its citizens who have sustained its excellent agricultural society; and it stands very high on the catalogue of *dairy* counties. When, therefore, the particular dairy is pointed out to us, which took the first premium last year, and which still maintains distinctly its pre-eminence we cannot fail to regard it with a good deal of interest. This dairy, belonging to Amos Goulding, we are informed, consists of only twelve cows, "and had on hand, August 23d, 1,600 lbs., packed in 50 lb. tubs; adding one-third for the balance of the season, which is a fair estimate, will show a yield of 200 lbs. to the cow, over and above the use of the family; this, at 15 cents per lb., the price contracted for, will show the proceeds of each cow, from butter alone, at $30," or $40 at present prices. The committee which examined this dairy, are confident the butter is equal to any Goshen ever tasted by them. Now for the explanation of this success. The committee found that the proprietor possessed not only a model dairy, but a *model housewife.* "Every thing," say they, "appertaining to this dairy, every article and place, which came under the care of Mrs. Goulding, showed the marks of system, industry, and economy; from the kitchen to the cellar, everything was the same, a perfect model of neatness and good housewifery."

Culture of Potatoes.

I made one very satisfactory experiment the past season, on raising potatoes. On a good soil in the garden, I marked out a row (3½ rods in length) and on the level surface dropped the sets or cuttings about a foot apart in the the row. My hired man then immediately covered them three or four inches deep with straw from the stable, a very small proportion of horse dung being intermixed; and over this covering another of earth about as deep, was applied, giving it the form of a low ridge.

All the culture it received during summer, was the removal of a few weeds by hand.

In autumn, the whole crop (about two bushels and one-third) was readily removed from the soil by a long-toothed iron rake with a short head; and this was done nearly as fast as another person could gather them into a basket. I think we never raised so fine a crop of potatoes, and not the least appearance of *rot* was upon them.

An acre contains four thousand eight hundred and forty (4840) square yards; and these, if extended out in a right line, would reach two miles and three quarters—that is, there would be a strip one yard wide, of that length. But to come to the point—the rows in a potato field do well three feet apart. Now, if I had planted a whole acre in this manner, and if all parts of it had yielded as well as my short row, the produce would have been more than five hundred and seventy-five (575) bushels to the acre.

I would further remark that potatoes growing in moist land (though they never ought to) should be removed as soon as they are mature. Part of our field crop was dug early, and very few traces of the rot were discoverable; but a part remained a fortnight later in the ground, and some were injured by the *dry rot.* This damage occurred where a moist streak led through the whole patch, and which would doubtless have affected the other potatoes, had they remained there. *Digging early,* as well as *planting on the surface,* I hold to be great improvements.

The *dry rot*, I can remember more than forty years; and it always occurred in wet ground. Such in the early stage of decay, are not materially injured for swine or cattle; but the *fetid rot* which came within the last few years, appears to be very different. David Thomas. *Greatfield, Cayugo Co.*, 12 *mo.* 2, 1852

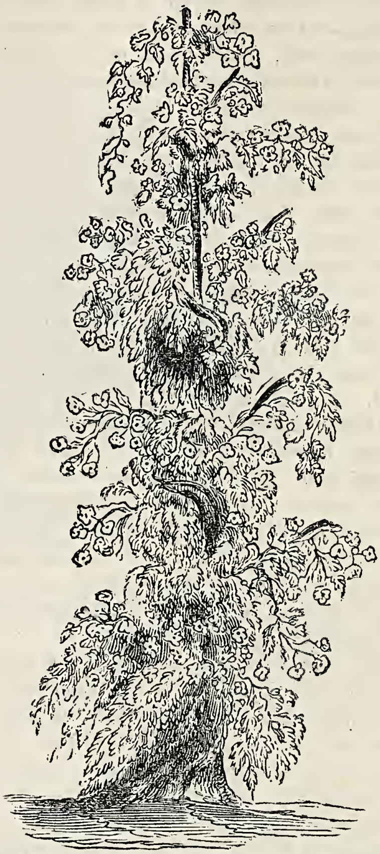
Climbing Plants.

" As graceful as a vine," is a very common expression. Every one thinks the phrase quite poetical, and that is the end of it. *Grace* and *Beauty* are well enough to talk about, and serve for excuses for writing fine sentences, say our utilitarians; but were you to advocate that these are " qualities as positive as electro-magnetism," you would at once be set down as a hopeless sentimentalist.

Still, we are about to propose something which has no other recommendation than simplicity, beauty, and grace. It costs nothing, and will afford no pecuniary income; but it looks pretty. We wish to talk about the propriety of planting climbing plants to shade the windows, to relieve the monotonous color of the exterior of the house, to cover up every thing ugly, and to heighten the charm of every thing pretty and picturesque. No matter how rude and unarchitectural may be your dwelling; vines will give it a new character, and make it look home-like and cheerful. There never was a grand old mansion or princely palace, that would not look grander and more kingly for a vine to twine about its great pillars, whose green leaves and bright flowers would relieve its stern and imposing appearance.

A decoration of this kind, you have not to wait years to have completed; nor to consult with architects, or spend much time yourself to secure it. A wish will almost bring it. We quote Mr. Downing's remarks as to the vines most suitable for cultivation in New-England and Middle states:

> Our two favorite vines, then, for the adornment of cottages, in the northern states, are the double *Prairie Rose*, and the *Chinese Wistaria*. Why we like these best is, because they have the greatest number of good qualities to recommend them. In the first place, they are hardy, thriving in all soils and exposures; in the second place, they are luxuriant in their growth, and produce an effect in a very short time–after which they may be kept to the limits of a single pillar on the piazza, or trained over the whole side of a cottage; in the last place, they are rich in the foliage, and beautiful in the blossom.
>
> Now there are many vines more beautiful than these in some respects, but not for this purpose, and taken altogether. For cottage drapery, a *popular* vine must be one that will grow anywhere, with little care, and must need no shelter, and the least possible attention, beyond seeing that it has something to run on, and a looking over, pruning, and tying up once a year—say in early spring. This is precisely the character of these two vines; and hence we think they deserve to be planted from one end o the Uuion to the other. They will give the greatest amount of beauty, with the least care, and in the greatets number of places.



The Prairie Rose is of uncommonly rapid growth—shoots of twenty feet in a single year, being a not uncommon sight. The Chinese Wistaria is of more compact growth, and its blossoms hang in large bunches, from eight inches to a foot long.

A climbing vine in the garden, in the " front door-yard," and in pleasure-grounds, is particularly desirable. One great difficulty in the way of planting vines, is a want of some support. On the one hand, a lattice house or arbor is too expensive for persons of moderate means, and perhaps less taste, while on the other, ladders and stakes are forever rotting and breaking down just when they should not. The cut herewith given, illustrates a method of avoiding these difficulties in a very tasteful manner.

It is simply procuring the trunk of a cedar tree from 10 to 15 feet high, shortening in the side branches to within two feet of the trunk, and still shorter near the top, and then setting it again, as you would a post, two or three feet deep in the ground.

Cedar is the best; partly because it will last forever, and partly because the regular disposition of its branches forms naturally a fine trellis for the shoots to fasten upon.

Plant your favorite climber, whether rose, wistaria, or honeysuckle, at the foot of this tree. It will soon cover it, from top to bottom, with the finest pyramid of verdure. The young shoots will ramble out on its side branches, and when in full bloom will hang most gracefully or picturesquely from the ends.

The advange of this mode is that, once obtained, your support lasts for fifty years; it is so firm that winds do not blow it down; it presents every side to the kindly influences of sun and air, and permits every blossom that opens, to be seen by the admiring spectator. How it looks at first, and afterwards, in a complete state, we have endeavored to give you a faint idea in this little sketch.

◆

Vegetable Nutrition.

Some writers affirm that all kinds of vegetables derive their nutrition principally from the atmosphere; that a rich soil only furnishes the plant with power to draw the nutritious gasses from the surrounding air. To prove this, it is said that some perfectly clean sand was obtained and moistened with distilled water, and the solutions of certain salts added to stimulate the young plants that had germinated, to enable them to draw from the air their principal nourishment; and that the experiment succeeded in producing perfect plants, and ripened seed.

I have been a pretty close observer of vegetable physiology, embracing all the functions of the various organs of plants, &c., and have long since come to the conclusion that this theory is erroneous. I am perfectly satisfied that plants obtain the material that adds to their substance, principally, if not entirely, from the earth; and that the action of the air upon them is very similar to its action upon the animal economy. It forms no part of the substance of nutrition, but acts as a purifier of the circulating fluid, and as the source of heat or caloric. I am satisfied that the leaves act the part of the lungs in animals, refining the nutriment that has been taken up by the roots and conveyed to the sap, and preparing it for appropriation by the various organs of the plant, to the formation of wood, fruit, &c.

If the theory of atmospheric nutrition were true, it seems to me the following difficulties would be insurmountable: some soils are so *rich* that wheat and corn cannot be grown upon them. Many of our rich bottom lands will produce immensely large corn and wheat plants, but no grain—they "run all to stalks and straw." Ground is often found too rich for some fruit trees. They make the most luxuriant growth of wood, but produce no fruit. On the other hand, many soils make very little wood, but produce abundance of fruit on the trees. I presume no one will question these facts, as they are very common. Then, if plants derive most of their nutrition from the air by means of the vigorous action of the plants, why do the plants in the above cases not produce fruit, corn, &c. I am aware that I shall be answered by the advocates of the atmospheric theory, that the soil did not enable the plants to collect from the air, the *particular aliment* required for the formation of fruit, notwithstanding the apparent vigor of the plants. But I am not satisfied with this answer. I admit the plants do not attract the particular kind of aliment from the air, but I insist that the air is not the place to look for it. To me the cause of the failure to produce fruit, &c., is very obvious—the earth or soil was deficient, not the air, in the element nenecessary to their growth.

Let us look at another point. It is known that wheat grown in the Genesee country—the whitest in the world, is deficient in gluten, the most nutritious portion of that grain. That same wheat when grown in the south, say in Cecil or Talbot co., Maryland, becomes rich in gluten. Again, there are farms almost adjoining in Maryland, that produce wheat entirely different in its quality of gluten. Now if the elements of nutrition of which the wheat is formed, are derived from the air and not the soil, how is it that the quality of the wheat is so different when grown on different soils? That the air exercises great power upon the plant I not only admit, but my theory of nutrition and of vegetable life, claims. As before said, the nutritious matters are taken up by the roots, and carried by the ascending sap of the plant to the leaves, in which they are exposed in their broad surfaces to the action of the air. The purified sap then returns, vitalised, as it were, downwards to the branches and body of the plant, its nutritious principle taken up and appropriated for the formation of wood, fruit, &c., as may be required. In the case of all annual plants, such as wheat, corn, &c., the whole of the circulating fluid is exhausted, the roots having ceased their functions as soon as the fruit is ripe, and the whole plant becomes dry straw.

I have hinted above that the air has something to do with the vitality of the plant, with its *living principle.* In this I believe that the air is the food that sustains or nourishes the vital principle. It is not life itself, nor the origin of life. As the earth furnishes the food that supports the material of the plant, the air furnishes the food that sustains the vital principle. There is a kind of combustion continually going on in plants and animals, through the aid of the air, from which animal and vegetable heat is generated, and this heat sustains the individual in life. The living principle itself, is derived from the seed from which the plant grew, and was originally imparted to the first plants at the creation. Do you not ee in this view of the question, a beautiful illustration of the sacred writings, in which it is said, "Let the earth bring forth grass, the herb yielding seed, and the fruit tree yielding fruit after his kind, whose seed is in itself upon the earth."

It has been objected to the theory herein advanced, that if it were true, plants would grow and increase in size in winter as well as in summer, because the roots have access to the stores of nutrition as well in the one season as the other. But I adduce the same objection to the atmospheric theory. If plants derive most of their nourishment from the air, through the leaves, then they would not grow in winter at all. But all perennial plants *do* grow in winter. Measure the circumference of a thrifty young tree immediately after the leaves have fallen, and then again in the spring before the leaves put out, and you will find the tree has made considerable growth; not so much as it would have made in the same length of time in summer, but it will have made a very appreciable increase. This is attributable to the continued circulation of the nutritive fluid, and its appropriation by the plant, notwithstanding its deprivation of leaves. In this case I believe the *bark* of the plant exercises functions similar to those of the leaves, though to a less extent.

I do not know that this point in vegetable physiology, is of great practical importance to the farmer. The atmospheric theory might, if adopted, induce inattention to the supply of proper manures to the soil, and too much dependence upon a supply from the atmosphere; but the most strenuous advocates of it require that the same manures shall be applied to the soil that the objectors apply, to enable the plants to draw their nutriment from the air. So that it matters little which theory is adopted in practice.

Whether it is the oxygen of the air or the nitrogen, or the carbonic acid gas that is found in the air, that acts the part of vital air to plants, is a question I do not now discuss. One thing is to me certain, the atmosphere, in whole or in some of its parts, acts in vegetables as well as in animals, as a sustainer of the vital principle by generating heat, and this it does in winter as well as in summer, as may be very readily ascertained by inserting a thermometer into the center of a tree in a very cold day, when it will be found that though water shall be frozen a foot deep, and even more, by the side of the tree, yet the temperature of the tree will be above the freezing point; or, if the weather be so cold as to freeze the tree, yet the temperature in the tree will be found much higher than that outside. *

To manure and lime wet lands, is to throw manure, lime, and labor away.

Sowing Clover with Corn.

Mr. Tucker—I see in the last number of your Cultivator, some person inquires of you about sowing clover among corn, and as it is a common practice here, and our manner of doing it appears to be somewhat different from yours, I thought I would give you a brief account of it. As our oat crop here brings but a poor price, and is generally considered an exhausting one to our soil, a number of our farmers have ceased raising it, and instead of following our corn crops with an oat crop, as was our usual rotation here, we now always sow our corn fields with clover seed. We always sow it just after the double-shovel plow runs through our corn the last time. I sowed my seed this summer, in the first week of July, and the corn-field now looks fine and green, with a good coat of clover on it. A neighbor of mine has now one of the finest looking clover fields, done in the same way, that I have ever seen. I did the same thing last year, and the year before. It affords early pasture in the spring following; and then the cattle are kept off until after harvest, when it has grown up considerably, and is then turned under for wheat. I never turned under better clover than I did this fall, that was sowed in among my corn last summer a year. Of course we do not sow it as thick as if we would want to keep it for mowing or permanent pasture. We consider that it pays us much better in the way of pasture, and then in a manure for wheat, than the ordinary oat crop would after our corn. We seldom fail here in getting it to catch, unless the season is unusually dry, and then it partially fails.

We always sow it immediately after a rain, or directly after the plow, while the ground is fresh and mellow, and it will then start at once, and if the drouth does not kill it, you will have a fine crop of clover. A Plain Farmer. *Franklin Co., Penn.*

Stowell Evergreen Corn.

Mr. Editor—During the past season I raised a quantity of this new variety of sweet corn. It proved superior in all respects but one, and is undoubtedly a valuable addition to the farmer's crop.

You are aware that this is the variety which the learned Prof. Mapes asserts will keep green and plump, for table use, all the year round. My seed came from that gentleman, but the corn, according to my experience, *will not keep*, as he states. Perhaps I have made an error in the mode of preservation, though I followed the directions closely. If any of your readers have tried the variety, during the past season, I think they would benefit the public by sending you their results; upon the preservative qualities of this corn especially. E.

Geneva Trial of Implements.

Review of the recent Trials of Horse Powers and Threshing Machines, and the report of the same, by the Committee of the New-York State Agricultural Society, at Geneva and Utica, under whose supervision it was held.

If any thing were wanting to prove the great superiority of the Endless Chain Horse Power, patented by **Horace L. Emery**, over all others of its class—or if to prove the superiority and utility of endless chain powers over all sweep powers—it has at length been furnished by the report of the committee of the State Agricultural Society, on their trial of machinery at Geneva, in July last.

The trial was one of the largest ever had in this country, and probably in the world. It continued nearly two weeks, and was attended with a vast amount of labor and expense to all concerned, and seemingly every competitor returned to his home perfectly satisfied with the experiments to which their machines had been subjected.

Although the award for the best Horse Power was given the maker of the above Emery power, it is not of half the importance as is the report of the several severe tests to which all were subjected, as will be seen by reference to the report

Among other things, it says of the Emery power:

" The platform rolls over reels, furnished with clutches so
" disposed that its action is nearly in a tangent to the circle,
" and therefore acts to the best advantage. This arrange-
" ment seems less liable to wear than any other, and the en-
" tire contrivance and perfection of the work, gives to it a
" marked superiority."

It may here be proper to state, on the authority of two of the committee, Mr. Howard and Mr. Holmes, (after publication of the report) "that in course of consultation upon the relative merits of the several other powers, it was considered in committee that this one had one-third advantage in utility over the best of the others," but it is nevertheless true that its relative utility was not over-estimated, as will hereinafter appear.

One of the first and simplest experiments tried with the several powers in this class, was to ascertain the relative amount of friction, or in other words, how much force was absorbed in friction by the powers when not attached to any machinery, and running at the velocity required for practical purposes.

It was as follows: Each Two-horse Power was placed at an angle of 13°, and two men placed upon the platform, and their gravity, (269 lbs.) allowed to move them as nearly as possible to that velocity required for threshing. As their weight was too great and the velocity too rapid, a spring balance or steelyards, was attached to the frame work at the fore end, and held by the men on the platform—and by this means the motion was retarded sufficiently for the experiment. As the position of the steelyards was the same on each power, and in a horizontal position, it was reckoned that whatever the draft in retarding the motion might be, the steel yards must show it, as they did; and it was assumed that whatever of the propelling force derived from 269 pounds, which is equal to about 62 lbs., was not absorbed in friction, must be shown upon the steelyards—or in other words, what was not upon the steelyards, was absorbed. The result of this experiment was as follows, after getting up and maintaining a uniform velocity with each machine:

Emery's—Velocity of platform required for threshing, 169 feet per minute; velocity in experiment, 292 feet per minute; steelyards showed 27 lbs.; absorbed by friction, 35 lbs.

Badger's—Velocity of platform required for threshing, 222 feet per minute; velocity in experiment, 200 feet per minute; steelyards showed 11 lbs ; absorbed by friction, 51 lbs.

Westinghouse—Velocity of platform required for threshing, 135 feet per minute; velocity in experiment 152 feet per minute; steelyards showed 13 lbs; absorbed by friction, 49 lbs.

Thus showing, that while the Emery power did move nearly 75 per cent faster than required, the friction was but 35 lbs.—while had it been more retarded, the friction would have been considerably reduced below even 35 lbs,, or about 25 pounds.

Badger's power, which was awarded the 2d premium, absorbed 51 lbs. while running at about its requisite speed for threshing, or 46 per cent more than Emery's power—and probably this difference would have been 75 or 100 per cent, had the velocity of Emery's been reduced to its usual rate.

This experiment was also applied to the One-horse Power, with the following results: with one man, weight 150 lbs., producing a power on platform of about 34 lbs.

Emery's power in experiment, 192 ft. per min.; 10 lbs. on steelyards; amt. absorbed by friction 24 lbs.

Badger's power in experment, 146 ft. per min.; $4\frac{3}{4}$ lbs. on steelyards; amt. absorbed by friction $29\frac{1}{4}$ lbs.

Showing again, while Emery's power absorbed but 24 lbs., while moving about 14 per cent. too fast, the Badger power absorbed $29\frac{3}{4}$ lbs., about its regular velocity, or 24 per cent. more friction than Emery's.

These experiments, which were taken with the utmost care and precision, and repeatedly corroborated by others succeeding them, are wholly left out of the report, while others of less pointed results have been recorded.

One of which was to attach the same threshing cylinder alternately to each power, with the same band, and by placing five men in the Two-horse Powers, to note the distance their weight would cause them to travel per minute, as also the number of revolutions of the cylinder produced in same time. The weight of the five men was 714 lbs., producing a force of about 161 lbs.

Experiment with the Two-horse Powers.

Emery's distance travelled, per minute, 218 ft.; revolutions of cylinder, 1,996.

Badger's distance travelled, per minute, 300 ft.; revolutions of cylinder, 2,160.

Westinghouse's distance travelled, per minute, 130 ft; revolutions of cylinder, 1,390.

As this experiment combines an attachment to machinery, and as the relative velocity of the cylinder to each foot, or the whole distance travelled, varies according to the internal gearing of the powers themselves, it becomes necessary to take that difference into our calculations, which we find as follows: The cylinder, when attached to Emery's power, revolves 9.15 times per each foot of platform—with Badger's, it revolves 7 1-5 times to each foot—and Westinghouse's revolutions 10.67 times. Thus showing that Badger's power geared 27 per cent. slower than Emery's and 48 per cent. slower than Westinghouse's, and should produce results bearing a relative proportion of increase over them.

Emery's therefore, as compared with Badger's should have produced but 1620 revolutions, but did 376 revolutions over that, thus showing Emery's to have exceeded Badgers's by 23 per cent—and Badger's to have equalled Westinghouse's, should have produced 2061 revolutions, while he did more by about 9 per cent.

These minutes are copied from the report, but the deductions are not. They are themselves, self-evident, notwithstanding the report to the contrary, which reads.

" From the foregoing table, (alluding to velocities and dis-
" tances,) it is obvious that Badger's power works with the
" least friction, or that gravity gives to his machine a greater
" amount of useful power than to either of the others on tri-
" al—being three per cent more than Emery's and fifty five
per cent more than Westinghouse's."

It further says:

" Badger's power is well made, and in this respect deserves
" much credit; yet in this excellence it is exceeded by Eme-
" ry's."

" Badger's is a rack and pinion power, the lags being con-
" nected by strong iron links, and the rack, though straight,
" is provided with teeth increasing in depth as they approach
" the exterior edges of the plates into which it is divided; and
" each plate is perforated in the center, to accommodate the
" convexity of the pinion while passing over it, This perfo-
" ration weakens the pieces, and increases their liability to
" fracture. A rubbing action seems to be inevitable, caus-
" ing rapid wear."

Justice to the Emery power in this last experiment, requires the statement of the fact, that it was made at Utica some two months subsequent to the Geneva trial, and not with the understanding with the competitors, that it was to be made a part of the report ; and while this power was transported from Geneva to Albany, and back to Utica by railroad, it became filled in all its gearings with coal and cinder from the locomotive, being on an open car. It became necessary to take its every part to pieces, and was cleaned as well as could be done under the circumstances—while both the others were different powers than used at Geneva—one being brought by wagon with great care to Utica, and the other in a box car, by railroad. This is named to show the cause of the relative difference in the trials of friction at the two places. This fact was made known at the time to the committee, but it is not noticed by them.

The One-horse Powers, which were transported in tight cars, suffered no inconvenience from coal and dust, and the results were as follows:

Emery's, with two men, travelled 104 feet, and produced 950 revolutions per minute.

Badger's, with two men, travelled $87\frac{1}{2}$ feet, and produced 630 revolutions per minute.

According to the gearing as before, Badger's should have produced about 1,250 revolutions to have equalled Emery's—but came nearly 50 per cent. short of this standard.

Where has the report, as published, noticed this discrepancy in the One-horse Powers? No where. It simply gives the number of revolutions, without a comment Is it such a report as the statistics justify, or is it not?

Another experiment was made with each set of powers connected with threshers as in use, and six men placed on the several platforms, weighing 925 lbs., and the velocity allowed to equalize the power or wt. on the platform, and this velocity noted for one minute, as follows—(rather an ambiguous method of reporting, to say nothing of the errors):

Badger's power, 150 revolutions of wheel, 10 in. of platform to each revolution=197 feet, gaining perpendicular of 44.32, feet, for 232 pounds, while it should read—

Badger's power, 150 rev., 10 in. each for platform,=125 feet equal to raising 925 pounds 28.11 ft. perpendicular besides its own friction.

Emery's power 140 rev., $10\frac{3}{8}$ in. each for platform,=207 feet, equal to raising 925 pounds 46.56 ft. perpendicular, besides its own friction.

Westinghouse's 256 rev., $7\frac{1}{8}$ in. each for platform,=152 feet, equal to raising 925 pounds 34.19 ft. perpendicular, besides its own friction.

If this shows anything, it is that the Emery power and thresher combined, runs much more easily than either of the others.

Another experiment was, to place two men upon the platforms of the Two-horse Powers without threshers or steelyards, and allow the velocity and power (232 lbs. on platform) to equalise each other, and note the distance travelled—with the following result:

"Badger's power 218 revolutions, 10 in. each,=2 6 feet of platform, perpendicular elevation of 45.69 feet for 52.25 lbs." Supposing the 286 feet to be correct (which should be 190 ft.) the elevation would be 64.68 ft.—while it should read thus—

Name.	Number rev. of pulley.	Motion of p'tform to each rev.	Eleva'tion 232 lbs. besides frc'n.	Distance motion of platform.
Emery,......	430	$10\frac{3}{8}$	83.91 ft.	371 ft.
Badger, ...	218	10	42.97	190
Westinghouse,	386	$7\frac{1}{8}$	51.79	229

Thus showing conclusively the great difference in the friction of the powers themselves, as also with threshers attached, is in favor of the Emery power.

The next experiment is that of threshing grain with horses weighing 2,200 lbs., placed upon the several platforms, and a quantity of grain, 100 sheaves, weighed off to each competitor.

The travel of the horses, the time occupied, the weight of grain obtained, the velocity of the cylinders during the threshing of the grain, the number of men required, &c.

Name of maker.	Number of horses used.	Number of men employed.	Weight of sheaves threshed.	Weight of cleaned grain.	Time required in threshing.	Weight of horses used without harness.	Revolutions of Cylinder.
			lbs.	lbs.	m. s.	lbs.	
Emery, ...	2	5	810	169	10.30	2200	1550
Badger, ...	2	5	850	156	17.30	2200	1600
Westinghouse, ...	2	5	954	200	13.30	2200	1450
Pitts, Lever power and Self Cleaner,	8	7	934	194	5.30	draft. un'kn.	1350
Hall, Lever power and Self Cleaner,	8	6	1000	192	8.00	do	1650

From this table we obtained the following deductions, which will show the relative cost of threshing with the endless chain powers with great accuracy as the experiment was tried with every circumstance alike with each, and in a manner where there was no possibility of favoritism nor deception—as the whole work was done by the gravity alone, and each machine new, and horses not before used on any power.

Name of Power.	Distance travel'd by horses per min. in feet.	Ratio of grain to sheaves.	Pounds of wheat thrs'd per min.	No. of lbs. at same rate for 10 hours.	No. of bus'ls for 10 hs. at 60 lbs. per bushel.	Cost pr. bu'l with 5 men & 2 horses,	Cost per bu. with 3 men & 2 hor's, at same rates.
Emery's, ...	169.28	.201	16.09	9654	160 54-60	\$.0373	\$.0248
Badger's, ...	222.22	.183	8.91	5346	89 6-60	.0637	.0446
Westinghouse, ...	135.68	.209	14.81	8886	148 6-60	.0405	.0279
Pitts', Lever Power and Cleaner, ...	....	.207	35.27	21162	352 42-60	8 hors 7 men. .0311	
Hall's do, ...	....	.192	24.00	14400	240	.0458	

From the above it will be seen that the report charges each of the Endless Chain Horse Powers, with five men in attendance, while in no instance were more than three men engaged in these threshing experiments—and further, three men can as well manage either of them, as six or seven men can the larger machines; while they are charged with only that number. With the endless chain, the necessity of a driver is avoided, as the feeder of the thresher not only attends his own team, but has the whole under his control, and can check or stop the whole instantly, by means of brakes and lever.

It is also observable that the yield is little better than half a crop, while it is mixed with much weeds and grass, requiring about the same power and labor as it would to produce results double what we have before us. As the ratio of wheat to straw bears a very uniform proportion, these experiments form good data from which to make the following deductions:

The Emery power required the team to travel but 1.9 miles per hour, and with the force of gravity alone, threshed of this grain at the rate of 161 bushels per day, of cleaned wheat at an actual cost, with the three men, of less than $2\frac{1}{2}$ cts. per bushel, which, cleared from the fine chaff with fan mill, will add somewhat to that sum, making say three cents per bu. over boarding, and calculating the board of three men and two horses at $37\frac{1}{2}$ cts. each per day, will cost 4 cents and 1 6-10 mills per bushel, or in a good yield, about half that sum.

Badger's power requires over $2\frac{1}{2}$ miles travel of team per hour, and threshed but 89 bushels of cleaned wheat per day, costing for three men and two horses, 4 cents 4 6-10th mills per bushel, or cleared up at 4 cents 9 8-10th mills, over board, or including board of men and team, 7 cts. and 8-10ths of a mill per bushel—or in good yield about half that sum.

Westinghouse's power required less travel of team, being but about 1.6 miles per hour, threshing 148 bushels per day, costing with three men and two horses, 2 cents 7 and 7-10ths mills per bushel over board, or cleaned up, 3 cts. and 2 9-10th mills per bushel, or including board, 4 cents 5 8-10th mills per bushel—or in good yield about half that sum, thus showing at a glance, that while Badger's team travelled 30 per cent faster, he threshed 45 per cent slower, costing 70 per ct. more per bushel than with Emery's power, and that with Westinghouse, the team travelled 19 per cent slower—threshed 9 per cent slower—costing ten per cent more per bushel than with Emery's.

It is proper to remark here, that Westinghouse was at one time the agent for selling the Emery power, and but recently has made the kind used at these trials, which, excepting an alteration in increasing the gearing, (to its disadvantage in strength and durability,) is in all other respects essentially the same as the Emery power, and is claimed to be a bare-faced infringement of his letters patent, and legal proceedings have been directed against him therefor—thus establishing beyond cavil the superiority of the Emery's Endless Chain Power over all others, and particularly the *rack and pinion.*

The writer would willingly stop here but for the reason that an unfair, equally erroneous and unjust comparision is made in said report, between the two premium machines in the different classes, which is wholly foreign to the subject, and drawn from prejudice or the want of a proper understanding of the long series of experiments accompanying the same, and is not deducible from any thing connected with the reports of the experiments.

Notwithstanding the report says—"These different classes "cannot be compared with each other, your committee have "viewed them as unconnected," in the very next paragraph it says, "The table shows Emery's machine requires twice "the time to perform the same work that Pitt's machine will "accomplish," then goes on with an ingenious calculation, and carries it through, showing thereby that grain can be threshed by Pitt's machine, just 3 and 7-10th mills less than with Emery's, and that, "This difference will pay the extra interest on "the cost of the larger machine, the expense of keeping it "in repair, and the cost of an elevator to remove the straw to "the stack-yard." Again it says, "These advantages be-"long alike to all the machines of the class of which Pitt's is "the representative," while Hall's, in the same trial, of the same class, and the next best, came, by the same rule, more than 44 per cent. short of Pitt's, while the public well know the relative merits of the two are barely discernible. And again it says, "An earnest endeavor has been used to ascer-"tain and record facts in relation to each machine, with the "nearest approach to mathematical accuracy, and from such "premises to determine merits and excellences," and in the next line it says, "It would mislead the farmers of the State, " and do injustice to the inventors, if the results exhibited in " the above table are allowed to stand as a correct exibit of " the ability of the several machines to separate wheat " from straw."

Next it assumes "360 lbs. grain as a fair yield from 100 " sheaves, and that 4,500 sheaves a day's work for Pitt's ma" chine, making 270 bushels per day with 7 men=$7; 8 hor" ses at $4—$11=4 cts. 7-10ths of a mill per bushel."

The next assumption is, that as it takes Pitt's $5\frac{1}{2}$ minutes and Emery's $10\frac{1}{2}$ minutes at Geneva, and that if 270 bushels is a day's work for Pitt's, then half that, or 135 bushels, is a day's work with Emery's, and the calculation includes five men, for even this small day's work, instead of three, costing per report, 4 cts. and 4 4-10th mills per bushel.

Now as the whole quantity threshed at Geneva averaged but 171 lbs. per hundred sheaves, in the above calculations the yield is more than double that at Geneva, and according to the same rate as actually threshed by Pitt's there, he would have obtained 743 bushels in ten hours, or just $2\frac{3}{4}$ times more than is reckoned a fair day's work in this "comparison;" or in other words, that Pitt's was working $2\frac{3}{4}$ times faster than could be kept up through a whole day, which is readily accounted for by those who witnessed it as the fatigue of the team after threshing 5 minutes 30 seconds, was greater than was caused by the whole threshing done on all the Endless Chain Powers which were operated by the same team in quick succession, requiring in one, and the last case, $17\frac{1}{2}$ minutes, and in all $41\frac{1}{2}$ minutes.

Now, where is the justice of reducing the quantity in good grain to 135 bushels, while 161 bushels was actually the rate of threshing poor grain, a deduction of over 16 per cent., while the Pitt's power, which has been shown to have been working $2\frac{3}{4}$ times faster than in the comparison, is made the standard, and its time alone considered as the index of its capacity.

To show the fallacy of this, let us reduce the trial at Geneva from 5 minutes 30 seconds to what it should have been, or $2\frac{3}{4}$ times=15 minutes $7\frac{1}{2}$ seconds, which, compared with the correct time of Emery's threshing, which is 10 minutes 30 seconds, shows that instead of requiring more time, Emery's worked the fastest by 4 minutes 23 seconds, or 40 per cent faster than Pitt's, or equal in good grain to 378 bushels per day, instead of 135 bushels. This is good logic, and based upon the materials in the report and "comparison" there made.

If to these estimates be added to Pitt's the boarding of men and horses, the cost would come up to 6 cents $1\frac{1}{2}$ mills per bushel, while if the board of three men and two horses be added, (being all the force used unless the owners of the team are counted, who being fearful for the safety of their horses, no harness being allowed, attended and held them during each experiment, it being he first time they had been on a power,) the cost with Emey's power would be but 4 cts. 3 4-10th mills per bushel, making a difference in favor of Emery's machine of 1 ct. 8 1-10 mills per bushel, or 30 per cent. less cost. instead of 9 per cent. more than with Pitt's, as the "comparison" would have it.

Although 270 bushels is more than average days work for Pitts' machine, with any number of men and horses, and especially with 6 and 7 men and 8 horses—it is not unusual that 250 bushels, and in very many instances 300 bushels, have been threshed per day with the same team and four and five men all told. with the Emery power. While these numbers are not published as an average capacity for the Endless Chain Powers of Emery's Patent, two hundred bushels of wheat of average yield is their warranted capacity with horses weighing 1,000 pounds each, and four men to attend it.

So much for this "comparison." If the relative capacity, utility, portability, and cost, both of machines as well as running same, is not established in favor of the Endless Chain Power of Emery's Patent, not only over all others of its class, but over the best of the larger kinds of lever powers, by at least thirty-three per cent, then such trials and experience cannot establish anything.

As to the philosophical remarks in the report, concerning the momenta of cylinders, as also their construction as whole or open, or the use of various contrivances for reducing friction and proper lubrication of machinery, as also the simplicity of the construction of the premium thresher, with its teeth three inches long, (while the report says $1\frac{1}{4}$ is better,) &c., I must omit, or leave the the subject for another notice, or for those who are sufficiently qualified to comprehend so great a subject.

Having consulted several members of the committee, both before and since the publication of the report, and pointed out these errors, and learned from them that, having made their calculations, based on what they considered correct principles; they still adhered to the report, with a conviction they had done justice to the subject and all concerned. I would not in any manner wish to impeach their motives, while I do question the results at which they arrive.

Albany, *Jan*, 1, 1853. H. L. EMERY.

New-York State Ag. Society.

The members of this society should recollect that at the last annual meeting, the time for holding the future annual meetings was changed to the *second Wednesday of February*, at which time the next meeting will be held at the Capitol, in this city.

The Executive Committee held their regular meeting for December, on the 2d, at the society's rooms, in the Old State Hall.

There were present—E. P. Prentice, John Delafield and George Vail, Ex-Presidents; Lewis G. Morris, A. Van Bergen and Charles Lee, Vice-Presidents; Wm. Kelly, John A. Corey, John Butterfield, Executive Committee; Luther Tucker, Treasurer; E. Corning, Jr., and B. P. Johnson, Secretaries.

A letter having been received by the secretary, from the president, HENRY WAGER, informing the Board that, from severe illness, he was unable to be present at the meeting of the Board, very much to his regret, E. P. PRENTICE, Esq., Ex-President, was appointed President pro tem.

Mr. Johnson presented a report from Mr. Wager and himself, delegates to the Fair and Exhibition of the Agricultural Societies of the Eastern Shore of Maryland and Talbot county, which gave a very interesting statement in relation to the improvements now in progress in the husbandry of that part of the country. It was ordered published in the Journal of the Society.

A letter to the president, from J. Delafield, Esq., was read, on the importance of introducing into the State, the cultivated grasses of Great Britain, for the purpose of improving our meadow and pasture lands. The importance of the subject was fully appreciated by the Board.

On motion of Mr. Johnson, Messrs. Delafield, Kelly and Johnson were appointed a committee, to report at the next meeting of the Board, on the subject, as to the best measures to be adopted to accomplish the object.

Mr. Delafield presented to the Board, for their examination, maps of the county of Seneca, and several other counties of the State, prepared with great care, and stated that it was designed to complete the series of maps for the entire State. The Board, aware of the great deficiency existing, at the present time, in the maps of the different counties of the State, which, so far as the surveys of counties made under their direction, has been most manifest,

Resolved, That they deem it a matter of great importance to the agricultural interest of the State, that a set of correct maps should be obtained, and that they trust that Mr. Delafield will be enabled to secure their completion.

Col. L. G. Morris presented to the society, on behalf of H. Strafford, Esq., London, vol. 10 of the Short Horn Herd Book; and on behalf of John Tanner Davy, Esq., Davy's Devon Herd Book.

The thanks of the society were tendered to these gentlemen for their valuable donations to the library of the society.

On motion of Col. Morris, H. Strafford, Esq., and John Tanner Davy, Esq., were elected corresponding members of the society.

On motion of Mr. Johnson,

Revolved, That we deem it of great importance to the agriculturists of our State and nation, that the lec. tures delivered by the late Prof. John Pitkin Norton, before the Albany University, in the winter of 1852, be published.

Resolved, That Messrs. Prentice and Johnson, be a committee to correspond with the relatives of Prof. Norton, in relation to their publication, and requesting them for the Transactions of the Society, provided they are not to be published in any other form, (the copy right to be secured to Mr. Norton's representatives.)

Weekly meetings during the session of the Legislature were ordered to be held at the Agricultural Rooms, and Messrs. Prentice, Tucker and Johnson, were appointed a committee to make the necessary arrangements.

Mr. Vail and Mr. Johnson were appointed a committee in relation to an application for the enlargement of the Old State Hall.

The judges for the winter meeting were selected, and the secretary directed to inform the gentlemen, and ascertain previous to the next meeting of the Board, whether they would attend.

Vermont State Ag. Society.

At the annual meeting of this society, held at Montpelier on the 19th Oct., the following officers were elected for the present year:

Frederick Holbrook, Brattleborough, President.

Edwin Hammond, Middlebury; Joseph W. Colburn, Springfield; H. B. Stacy, Burlington; and Joseph W. Fairbanks, St. Johnsbury, Vice-Presidents.

Justin A. Beckwith, Middlebury, Cor. Secretary.

Geo. W. Strong, Rutland, Rec. Secretary.

John Spalding, Montpelier, Treasurer.

John H. Vail, Bennington; Henry Keys, Newbury; Geo. T. Hodges, Rutland; Portus Baxter, Derby; and B. B. Newton, St. Albans, Additional Directors.

New Publications.

WOMAN'S RECORD, OR SKETCHES OF ALL DISTINGUISHED WOMEN, *from the beginning till A. D. 1850, with selections from female writers of every age*, by SARAH JOSEPHA HALE. Harper & Brothers, New-York.—This volume, consisting of 900 pages, and illustrated by 230 portraits, engraved by LOSSING & BARRITT, containing the finest specimens of female composition which have ever been produced, and elegantly bound, will be the most popular work of the season. The authoress, who is not without her claims to literary reputation, has shown decided good taste in her selections, and drawn her characters impartially and well. The book will form an excellent guide for those who are desirous to know something of the women who have made a mark on their age, and prompt to more extensive reading. The effect of thorough female education is clearly visible in the increase of writers in that sex, and it is not to be denied that some of the choicest literature of the day, is from the pens of women. The authoress, in some closing remarks, condemns the spirit of Womans' Rights' Conventions in very just and appropriate language.

THE PRIVATE LIFE OF DANIEL WEBSTER, by CHAS. LANMAN. Harper & Brothers.—This neat volume, appearing as it does, before the grief for this distinguished man has merged itself in some new absorbing topic, will have a great run. It would appear that much of his private life was as touchingly beautiful, as full of kind thoughts and generous actions, as his public life was eminent and useful. This book contains a portrait and profile sketch of Mr. WEBSTER, together with wood engravings of his birth-place and residence at Marshfield. It is written in a pleasing, unpretending style, aiming simply at truthfulness.

GRAHAM'S MAGAZINE. GEO. R. GRAHAM, Philadelphia.—The January No. has been received. In the beauty of its illustrations, the style of its execution, and in its contents, it is unsurpassed by its contemporary fashionionable magazines. Indeed, we question whether it does not rank above them altogether, and should not in justice be classed with the best literary periodicals.

LOSSING'S PICTORIAL FIELD BOOK OF THE REVOTION—is now completed. It is finely illustrated, and full of choice and interesting matter. Those who have received the numbers as issued, do not need to be assured of their value, but those who have not, will do well to buy the book.

BLACKWOOD'S EDINBURGH MAGAZINE. Published by LEONARD SCOTT & Co., New-York.—This is one of the best English literary magazines, and its scope embraces a wide range of subjects. Its original disquisitions are of a high order, and its articles on literature, biography, narratives, historical and fictitious, are always written in the best style. It is the organ of some of the most distinguished English authors, and enjoys an enviable reputation, and a large circulation both in Great Britain and in this country. Its price is now only $3 a year, and the postage only 24 cents a year. Leonard Scott & Co. also republish the Edinburgh Review, the London Quarterly Review, the Westminster Review, and the North British Review, at $3 each, or the four, with Blackwood, at $10.

THE HOME JOURNAL, published weekly at New-York. GEO. P. MORRIS and N. PARKER WILLIS, Editors, at two dollars a year, in advance.—This paper is among the best of our family literary journals. The gentlemen who have the charge of it are connoisseurs in matters of taste, and every number shows that the nicest discrimination has been used in the selection, revision and composing of the subject matter. Special efforts are to be made to improve the paper the coming year, and we doubt not it will receive the support it merits.

LITTLE SILVERSTRING, *or Tales and Poems for the Young*, by WM. OLAND BOURNE. Published by CHAS. SCRIBNER, New York.—This finely illustrated volume, is an appropriate present for children at the Holidays. It is written in a simple, tasteful style; abounds in instruction and entertainment, and has a vein of moral sentiment running through the whole. The book was evidently written for the purpose of teaching truth and principle, and the author's felicitous manner of expression enables him to do this effectually, while at the same time it will win him many friends in the young hearts that dwell upon his words.

OSWEGO CORN STARCH FACTORY.—Our readers have often heard of the Oswego Corn Starch, but they may not know the actual extent of the manufacture. The building is five stories, supported by a cast-iron frame, which weighs three hundred thousand pounds. The building covers an acre and a half. About 100 men are employed, and the daily product about 10,000 lbs. of starch. The machinery in the factory weighs about half a million pounds, or two hundred and fifty tons. About 200,000 bushels of corn are annually consumed, 800 tons of coal, and 800,000 feet of lumber for boxes.

Dwarf or Pompone Chrysanthemums.

Few novelties have added so much to the stores of the florist for early winter use, as the New Dwarf Chrysanthemums. Being perfectly hardy, they are adapted to the wants of cottage gardens as well as green-houses; as they are equally fitted for the open ground or for pot culture. We have therefore given a wood cut which gives a good idea of their general appearance. The flowers themselves, are many of them no larger than our engraving, whilst their colors are as brilliant as those of the larger varieties. The plants, (if stopped as they ought to be in summer, while growing,) do not grow more than a foot or 15 inches high, and if well managed, will, in November and December, be a mass of bloom. The mode of culture is as follows: In April or May put several cuttings or shoots from an old plant, into a pot, round the edge, or into the open ground in any light soil. Shade them for a fortnight from the mid-day sun; they will root without glass over them, but if there is a frame or hand glass to put over so much the better. In six weeks stop them; that is, nip off the top with the finger and thumb; this should be above the third leaf from the bottom. New shoots will come out from the eye of every leaf in a few days. As soon as these shoots are about half an inch long, pot singly such as are wished to be bloomed in pots, and plant the others in the garden. The best compost to grow them in is half sandy loam and half old hot bed manure. Take care during the summer to give them water over head and at root, so that they never flag for want of it. Those in pots should, in about four or five weeks from the time they are potted, be shifted into a larger pot. The proper time for doing this is as soon as the pots are filled with roots, which can be easily ascertained by turning one out of the pot, by tapping the edge of the pots on the edge of the potting bench. The pots should be plunged into the ground, or in coal ashes, putting a piece of broken pot for each to stand on, to prevent the worms entering. In October the pots may be brought into the stove or green-house, to bloom. Liquid manure water given at the root twice a week, will add to the beauty of the foliage, and to the size and color of the bloom; but they will flower well in the above compost without it. The best varieties are La Fiancee, white; Daphnis, purple; Bozard, yellow; Circe, rosy pink, and Bouton de Versailles, mulberry.

What shall we do for Fodder this Winter?

The present scarcity of hay throughout a large portion of the country, has caused the anxious inquiry to be made a thousand times, "How shall we bring our animals safely through the winter?" Many have answered it by selling off at low prices a large portion of their stock; but we believe that taking the country at large, the entire deficiency might be made up, *by saving what is now wasted*—and that too, wasted in a way of which one-half our ordinary farmers are entirely unconscious. "Is it the treading of hay by the cattle into the mud?" eagerly asks one—"Is it by neglecting the use of the straw-cutter?" inquires another—"Is it by irregular and improvident feeding—by allowing animals to injure each other—by permitting our hay to be spoiled by exposure?" are the various questions of others. It is none of these sources of loss, although all are to be carefully avoided, that we refer to. What we mean is the wasteful practice of using hay and meal *for the simple purpose of fuel*—for maintaining the animal warmth of sheep and cattle—but which ought to be used solely for keeping up their flesh. "What! burn up our hay to heat our barns and sheds? Impossible!"

Permit us briefly to explain this matter, for the benefit of that portion of our readers who may not have given it their attention.

Let us inquire why it is that the human body, and the bodies of warm blooded animals generally, (except at the surface merely,) are always at the same temperature, whether in summer or in winter, in cold climates or in hot—why, in the intense cold within the arctic circle, where the mercury of the thermometer is frozen solid, the heat of the body is as great as under the burning sun of the torrid zone? In those cold regions the heat is constantly escaping from the body at a prodigious rate, in the same way that the heat of a stove is constantly passing into the air which surrounds it, and is carried off by the currents. Where does it all come from to supply this constant waste?

By breathing, a large quantity of oxygen from the air is constantly received into the lungs. The circulation of the blood brings this oxygen into contact with the carbon and hydrogen of the blood, both of which are derived from the food. The oxygen combines with these two elements, and in the act of combining heat is given out, in precisely the same way, only more slowly, that it is given out by the burning of wood. Combustion in pure oxygen gas is very intense, and its heat greater than that of the hotest furnaces; combustion in common air is slower, and the heat correspondingly less intense. But in the animal body many hours are required to consume the same amount of oxygen as in quick combustion. But the *real amount* of heat is the same; its intensity is diminished as the time is lengthened. This is further proved by the fact that animals which breathe rapidly, have the highest animal heat. A child has a more rapid respiration than a man, and we accordingly find its temperature two or three degrees higher. Birds breathe more rapidly than quadrupeds, and have four or five degrees more of heat. Fishes and reptiles, known as cold-blooded animals, breathe very slowly. Active exercise increases the amount of bodily heat, by throwing the blood more rapidly into the lungs, and which thus combines faster with the oxygen, or in other words produces a more rapid combustion.

Hence more food is required for animals in winter, to keep up the more rapid waste of heat. And hence too, domestic animals, exposed to cold winds and snow storms, require more food than those sheltered in stables. A starving animal of any kind is soonest frozen to death. Beasts of prey in the arctic regions, far exceed in voracity those of the torrid zone. The inhabitants of the extreme north consume almost incredible quantities of food. Every farmer knows that it requires more grain to fatten beef and pork in the depth of winter, than during the milder weather of autumn.

Now, when domestic animals are exposed to the severe cold of winds and snow storms, there must be three resulting alternatives. Either a large amount of food must be given them to keep up the heat, besides what is needed for aliment; or the flesh must be drawn upon and reduced for the same purpose, developing the skeleton; or else the animal must freeze to death. One of these three alternatives is inevitable. The last, no one desires; the first is a costly process; the second is not less to be dreaded. Now, our advice to all is, to avoid this triple-horned dilemma, by securing the warmth of comfortable shelter.

To prevent, therefore, the consumption of high-priced fodder for the purposes of fuel, a most wasteful source of heat, we must come at once to the practical details of warm stables, dry sheds, and a free use of good litter and thick horse blankets. The winds which sweep through the cracks often seen in barns, carry off every winter many hard dollar's worth of food; the comfortless wet floors, and yards of snow and mud, absorb a still larger portion. The practice of even blanketing cows, in connection with a thorough attention to cleanliness, has been adopted by some to great advantage. We have known an intelligent farmer, who, by providing warm, close, and comfortable houses for his sheep in winter, actually lost less than in summer; and we have heard of another of extensive experience in sheep raising, who is about to erect a house in such a manner as to be moderately warmed in the severest weather by stove heat, as being more economical than maintaining the heat by feeding.

This is a subject that ought to receive a more thorough attention from farmers generally; for these facts do not rest on the basis of uncertain theory, but are established as thoroughly as any truths in farming. Their full appreciation generally in a country where there are several months of freezing weather, would, we doubt not, lead to a corresponding practice in the erection of shelters, that would save the country at large many hundred thousand dollars in every year.

Agricultural Charlatanry.

Truth, as opposed to error, is the chief good, and in its knowledge lies all progress in religion, politics, social intercourse, science and art. Its antagonist is the great enemy of improvement, and thus these two principles are arrayed against each other; the one the almoner of prosperity, the other the forerunner of ruin.

No one can have failed to detect the presence of these opposing principles in the science and art of agriculture, as taught at the present day. Error as the result of ignorance, opposes the general improvement of agricultural practice, entrenching itself in a blind conservatism. That error is often honestly entertained, in no degree lessens its pernicious influence; for in the absence of truth, as a proper means of guidance, false principles are adopted and adhered to with the zeal due to truth. The most learned are more or less subject to ignorance, for truth is yet in the progress of development, but there is a common stock of knowledge, sufficient for ordinary guidance, and the neglect of this is culpable. This kind of error grows out of mental inactivity, and is entirely incompatible with the thrift of the farmer.

Error, as the result of cupidity, a desire for fame, or other selfish motives, coupled with ignorance, constitutes downright charlatanry. It assumes a specious, tinselled form, to allure the simple and beguile the uninstructed. It is plain that a different culpability attaches to the honestly wrong, and the wilfully false. Yet the effects of charlatanry are determined by the degree of divergence from truth, without respect to motives, and he who proclaims the result of partial observation, ranks with the deceitful suppressor of known truth. Charlatanism is especially prevalent during the early existence of a science, or before its principles are well established. "Astronomy had its astrology, chemistry had its alchemy, geology had its hundred baseless cosmogonies," and agriculture has had its thousand fallacies, many of which are still flourishing. Charlatanry is the misty and spectral darkness of error, and disappears with the dawning of reason and intelligence, and the establishing of sound principles. Agriculture has been especially subject to the impositions of the charlatan, since the majority of farm laborers have been too ignorant to distinguish the true from the false.

Among the prominent *humbugs* of agriculture, are the transmutation of wheat to chess, electro-culture, sowing and reaping by the moon, shade the secret of vegetable growth, barberry blight, atmospheric churns, &c. Some of these lay claim to hoar antiquity; others are the offspring of the last decade. Each have commanded respect in their several localities, and though they have failed to endure the strict ordeal of investigation, they have served a good purpose, in teaching that deviations from the path of truth are to be carefully avoided. Perhaps not one of these erroneous principles had its origin in wrong motives.

There are, however, certain *humbugs* which savor of trickishness. They are the counterfeits of genuine coin, and consist chiefly in the professed application of well established principles. Books on agricultural subjects are manufactured, not because of their worth, but because, with the present appetite for information, they sell profitably. Originality is out of the question, and *compilation* is undertaken by persons totally unfit for the task, which fact may often be ascertained by the variety and scope of their labors. When one man stands as the author of books on half a dozen sciences, and then writes one on agriculture, or when a dozen agricultural topics are made the subject of as many volumes by one man, it is evident there is great ability in the writer or great worthlessness in the books. But voluminousness is not the only mark of want of ability in a writer. I have seen a book of scarcely 300 12mo. pages, professing to serve for the farmers' enlightenment in all the sciences that bear upon his occupation, Chemistry, Mineralogy, Geology, Meteorology, and Mechanics, were each distinctly treated of!

By the way, why cannot some enterprising publisher issue an American reprint of Prof. Johnston's Lectures, from his last amended edition? We have editions of this book, as issued eight years ago, but they are behind the age.

There is great opportunity for quackery in the manufacture of manures. To what extent it is practiced it is impossible to say, but it is certain that as the business increases, money will be made fraudulently by it. This quackery, bad as it is, bears no comparison in its mischievous results to those effected by fraudulent *chemical analysis*. As the details of the analytic process are accessible only to the special student of chemistry, it is a convenient cover for deceit. The analysis of a soil is valuable, if made thoroughly and conscientiously; but five dollars worth of analysis is usually of no advantage, save to the recipient of that sum. I may in the future, discuss this point at length, but for the present allow me to state two cases of chemical profundity that have come to my knowledge. A gentleman, one of Liebig's pupils, sent to a somewhat celebrated New-York chemist, two samples of a liquid, requesting to know their respective per centage of a given ingredient. In due time the analysis was furnished. No. 1, contained some 80 per cent.; No. 2, only 15 per cent.; according to the learned chemist. Both liquids were *pure oil of turpentine!* In the other case, a mixture was prepared by an experienced chemist, containing 8 or 9 per cent. of a certain ingredient, and forwarded to a chemist, occupying an official position of some importance, with a fee, and requesting him to determine the relative amount of the ingredient. An answer was returned, that the quantity was less than ½ per cent.

All base counterfeits prove the existence of a valuable reality. There is a genuine literature, a genuine chemistry for the farmers. "Let us prove all things, and hold fast that which is good." S. W. Johnson. *New-Haven, Ct.*

Inquiries for Answer.

Breaking Steers.—I wish to obtain through your pages, some remarks on the management and breaking of steers, and shall be greatly obliged to any of your readers who can enlighten me on the subject. L. M.

Osier Willow.—Can you or any of your correspondents, give me any information in relation to the growth and cultivation of Osier Willows? What soil is most suitable—when they should be cut, and how tall they will grow. We have an Irishman here, who says that in Ireland they have a kind which grows 12 or fourteen feet high. Is it the Osier, or some other kind? I have a swamp on the bank of the river, which is a mucky soil, and is overflowed at high tides. Would they do well in such a situation? Mynderse Wynkoop. *Cattskill, Nov.* 26, 1852.

Curing Hams.

A friend, who has cured hams, from a recipe given in the Cultivator in 1844, for two or three years past, assures us that he has never seen better hams, and suggests the re-publication of the recipe. It is as follows:

Hams.—The following mode of prepaparing hams, we have practiced for several years, and can with confidence recommend it to others:

For every one hundred pounds of meat, take five pints of good molasses, (or five pounds of brown sugar,) five ounces saltpetre, and eight pounds rock salt—add three gallons of water, and boil the ingredients over a gentle fire, skimming off the froth or scum as it rises. Continue the boiling until the salt, &c., is dissolved. Have the hams nicely cut and trimmed, packed in casks with the shank end down, as the pickle will thus strike in better. When the pickle, prepared as above, is sufficiently cool, pour it over the hams. They may lie in pickle from two to six weeks, according to the size of the pieces, or the state of the weather—more time being required in cold, than in warm weather. Beef or mutton hams, intended for smoking or drying, may be cured according to this mode, and will be found excellent.

Much of the goodness of hams depends on smoking. They should be hung at such a distance from the fire, as not to be heated. They should also be hung up with the shank end downward, as this will prevent the escape of their juices by dripping. Small hams, wanted for immediate use, will answer with two weeks' smoking, but larger ones, and those wanted for keeping, should be smoked four weeks or more.

Different articles are used for smooking. Perhaps sawdust from hard wood, where it can be conveniently had, is on the whole to be preferred. Corncobs are first rate, and are said by some to make the "sweetest" smoke of anything. Chips of maple and hickory, or the small branches of those kinds of wood, do well.

Pumpkins and Squashes in Corn-fields.—At an ag. meeting in N. Hampshire, a cultivator stated that he had found pumpkins, squashes and turneps, in corn-fields, to lessen the amount of corn. This is to be expected, as they must, as a matter of course, operate in the same way as weeds. He had also found, by using the corn-planting machine for every alternate row, a difference in favor of the corn-planter of about seven bushels per acre. So much for regularity and perfection of work.

Corn for Soiling.—This was recommended by some of the speakers, to be sown in small portions for several successive weeks, so as to admit of being cut and fed out in the same way. It had been found best to cut it the day before feeding, and to allow it to wilt partially in the sun, for if fed perfectly fresh it had a tendency to produce scouring, and became unpalatable.

Notes for the Month.

☞ In presenting to the public the first number of our new and Cheap series of the Cultivator, we are happy to be able to announce that our friend J. J. Thomas, of Macedon, Wayne co., who has been for years a regular contributor to our pages, will hereafter devote a much larger portion of his time to our Journals, as associate editor. In addition to his services, we have secured other aid for the various departments of our new weekly journal; and as The Cultivator is to be made up from its pages, we doubt but we shall be able to convince our readers, notwithstanding the great reduction in price, that there will be no deterioration in the character and reputation of The Cultivator. Indeed, we shall be surprised if they do not, at the end of the year, come to the conclusion that the present has proved superior to any former volume.

☞ The postage on The Cultivator is only *six cents* a year to any part of the United States, to be paid in advance, at the office where it is received.

The State Fair too Early.—We are frequently in the receipt of letters from different parts of the state, complaining that the Fair is held quite too early in the season. Farmers in the wheat growing districts, are in the midst of their autumn work, the weather is usually very oppressively warm, and the dust intolerable. A farmer in Steuben county, in a recent communication, says, "Last year there were several hundreds from our county in attendance, and at least thirty from our little town; this year not over four or five persons went from the county. I presume I have been asked a thousand times why the Fair was held so early." The Executive committee of the Society should take this matter into consideration. We doubt not that the postponement of the Fair to two or three weeks later, would accommodate better a large portion of our working farmers.

Age of Animals.—A correspondent in Chenango county, under the signature of "Augustus," charges that a man entered a three-year old animal at the last State Fair, in the class of two year olds, and received a premium for it in that class, when he knew that it was over three years old. Such deceptions are sometimes undoubtedly practiced, in spite of all the vigilance of the Society and its committees. If Augustus will communicate the name of the party, with the proof of the fact, to the Secretary of the Society, the person will not be permitted again to enter the list of competitors for the Society's premium.

Importation of Improved Stock.—Lewis G. Morris, Esq., of Fordham, Westchester county, whose annual sales of improved stock, have attracted so much attention for two or three years past, has recently returned from Europe, with several very valuable additions to his herd, purchased by himself, after a careful examination of the best yards in England. They consist of a fine young Durham bull and two heifers, two Devon cows and a bull; the latter and one of the cows from the celebrated stock of Mr. Quartley; the other a prize cow, and both cows in calf by Mr. Quartley's prize bull—some South Down sheep from Jonas Webb, and some Suffolk, Essex, and Berkshire pigs. These animals will enable Mr. Morris to give increased value to his herds, and cannot fail to excite a higher interest in his future sales.

Mr. Morris, also purchased a pair of superior Durhams, for Noel J. Becar, Esq., of Brooklyn.

Mr. E. Corning, Jr., of this city, has recently imported three fine Herefords, a bull and two cows, selected especially for him in England. The sire of the heifers was Lord Berwick's celebrated bull, which received the first prize in his class, at the Royal Society's show in 1851.

A Large Yield of Potatoes.—Mr. J. C. Tiffany, of Coxsackie, Greene county, raised on one-third of an acre, two hundred bushels of potatoes, of the "Dover" variety, from seven bushels of seed. The land was manured with barn-yard manure simply, and the crop while growing received no extra attention, save keeping the ground free from weeds.

Lopped Horns.—C. H. Stone, of Warren, Ct., says that lopped horns may be raised by "taking sharp glass, and scraping the horn on the underside of the top, and for two or three inches from it. Scrape it thin, but not so as to cut through it, and then oil with sweet oil. Repeat the operation in three or four weeks, until the horn is raised as high as desired. It will not fail, nor injure the horn."

Potato Rot.—An article in the Western Horticultural Review, from a correspondent, replies to a few remarks which appeared some months since in this paper, in so uncalled for and discourteous manner, that we are surprised that our friend, the gentlemanly editor of that excellent magazine, should have admitted it without comment. The remarks which we published were a respectful reply to some opinions advanced by the Massachusetts Plowman,—unless a polite request for him to furnish certain new insects which he supposed had been "created," or had made their "appearance," be regarded as "treating with contempt" the opinions of others. If this was wrong in us, what must we think of the far more uncivil remarks of the writer in the Review? He thinks, because insects have *sometimes* been discovered on diseased potatoes, that they must *always* necessarily exist there—a kind of reasoning which has led to a vast amount of error. If a certain species of Aphis is found in a hundred instances on a diseased plant, and in ten other instances cannot be detected by the most careful daily examinations, this would demonstrate that the disease was caused by something else. And this is the very ground which we have always taken.

The *Farmer's Magazine*, London, copies the entire account of the Trial of Implements at Geneva, from the Cultivator of Sept. last.

Hilling Corn.—At a late meeting of the New Hampshire Legislative Agricultural Society, all the speakers objected to hilling corn. One farmer, who had experimented by hilling and leaving the earth level, found no apparent difference in the product, but found the hilled portions more likely to be broken down by storms. The other stood more firmly; or if bent, sooner recovered itself. Was not this owing to the better maturing and hardening of the roots?

Unfading Beauty.

Dull days have come; the low winds moan,
The sky looks cold and grey;
The leaves, torn from the forest's bough,
In whirling eddies play.

Long since the flowers, the lovely flowers,
That made the landscape bright
As smiles in childhood's happy face,
Have vanished from the sight.

No minstrelsy now fills the groves,
But from the leafless spray,
The raven gives ill-boding notes,
Or cheerless screams the jay.

The garner'd grain, the gather'd fruit,
Have paid for fruitful toil,
And trees, like lifeless monuments,
Stand on the naked soil.

Cold rains descend and copious fill
The saturated land,
While all around the plashy pools
And yellow puddles stand.

Beasts seek their dens, the birds have gone
In softer climes to roam;
The squirrel finds his hollowed tree,
And man, his costlier home.

Still there are charms that cannot fade,
But mock the winter's rage;
The varied seasons safely pass,
And live from age to age.

Then while the frailer things decay,
A solace we shall find,
If we have made these charms our own—
The beauties of the mind. C. F. L. F.

Milwaukie, Wiss.

Mr. Emery's advertisement of Reaping Machine, which was promised this month, is necessarily crowded out by the pressure of other matter, till next month.

The Ever Green Sweet Corn.

A FEW bushels of this new and valuable variety of corn, from seed raised by Professor Mapes, for sale. Per bushel, \$10; per ½ peck, \$2; per quart, \$1. Sent by Express to any part of the United States, on receipt of the money by mail. Seedsmen supplied. This is beyond all doubt the most prolific variety of sweet corn ever grown. No farmer should be without it. Address ALFRED E. BEACH,
Jan 1—1t* White Plains, Westchester Co., N. Y.

A Chance to Make Money.

THE subscriber is desirous of having an agent in each county and town of the Union. A capital of from \$5 to \$10 only will be required, and any thing like an efficient, energetic man can make from three to five dollars per day,—indeed some of the Agents now employed are realizing twice that sum. Every information will be given by addressing, (postage paid,) WM. A. KINSLER,
Jan. 1—1t* Box 601 Philadelphia Post Office.

Improved Superphosphate of Lime,
AND
C. Deburgh's No. 1 Superphosphate of Lime.

IN the Dec. No. of the Working Farmer the undersigned is charged with selling Superphosphate of Lime made by a different manufacfurer than Prof. J. J. Mapes, and recommended the same to be of a better quality than his Improved Superphosphate of Lime. We in answer do say, that we sold upwards of one hundred tons of C. Deburgh's No. 1 Superphosphate of Lime. We have, and do now recommend it a better article than that made by Prof. J. J. Mapes, as we had both analysed by one of the best chemists in this country, and found that made by C. Deburgh a superior article. It is made of Bone and Coal dissolved in sulphuric acid, after which a large quantity of Peruvian Guano is added, likewise the residue of ammoniacal chambers, which of itself is an extraordinary fertilizer. We do recommend to every purchaser, to request an analysis from the vender of the so-called improved—also C. Deburgh's No. 1 Superposphate of Lime, and purchase subject to such analysis.

LONGETT & GRIFFING,
Jan. 1—m2w1t. 25 Cliff Street, New-York.

The Lodi Manufacturing Company

OFFER their Poudrette this season at their usual rates, viz: One barrel, \$2.00—2 barrels, \$3.50—3 barrels, \$5.00—5 barrels, \$8.00—6 barrels, \$9.50, and any amount over 6 barrels \$1 50 per barrel. Delivered free of cartage or other expense, on board of vessel or railroad, in the city of New-York. ☞ A small trial requested.

This article is so well known, and so universally approved of as a manure for corn and garden vegetables, that an extended advertisement is scarcely necessary. The Company will send free of cost, to any one wishing further information, a pamphlet containing instructions for use, &c.—also certificates from Hon. Daniel Webster, A. J. Downiug, and others, together with other interesting matter. Orders sent by mail, enclosing money, will be promptly acknowledged. All communications must be post-paid, and addressed to the "Lodi Manufacturing Company, New-York," office 74 Cortiand Street. Jan. 1—m5.w5t

A Farmer and his Wife

WANTED, to take charge of a Dairy Farm in the town of Rye. Apply to JOHN C. JAY, Rye, Westchester Co., N. Y. Nov. 1, 1852—3t.*

New and Important Insurance.

Northern N. Y. Live Stock Ins. Co., Plattsburgh N. Y.

INCORPORATED by the Legislature of the State of New-York, July, 1851. Horses, Cattle, and all kinds of Live-Stock insured against Death, by the combined risks of Fire, Water, Accidents, Diseases. &c CAPITAL, \$50,000.
GEORGE MOORE, Plattsburgh, Sec'y.
I. C. Mix, Fort Ann, Gen. Agent.
October 13, 1851.

This company are now organized and ready to receive applications for insurance. It is confidently believed that the owners of valuable animals will avail themselves of the advantages offered by this mode of protection. If fire, life and marine insurances are proper and expedient, so is live stock insurance: the reasons for insurance are equally applicable to all.

For terms please apply to Company's Agents.
Plattsburgh, Jnly 1—tf.

CHEAPEST FAMILY NEWSPAPER IN THE WORLD.

THE DOLLAR NEWSPAPER, PHILADELPHIA,

IS afforded to single subscribers at One Dollar per year. This paper is now ten years old, and has a larger paying subscription list, than any other family paper in the United States. It is printed on a large imperial sheet, with fair type, and contains as much reading as the largest of the two dollar weeklies. The great aim of its publishers is to make it an entertaining, as well as an instructive family companion. To this end a large amount of literary talent has been enlisted in its behalf, and the

BEST STORIES AND POETRY

that reach the public through the newspaper press, are published in the "Newspaper." In the matter of NEWS it has superior facilities, being printed on a pair of Hoe's celebrated eight cylinder machines, capable, the two, of printing forty thousand impressions per hour, its columns are kept open to within a few hours of its date and by a liberal expenditure for news by magnetic telegraph, is every week enabled to furnish its subscribers with intelligence from *four to eight days* nearer its date, than do the two dollar weeklies, which are mostly printed on the common slow press. A large portion of each humber is devoted to original articles on

AGRICULTURAL SUBJECTS,

from scientific and practical farmers, the consideration being a free subscription to all who will become occasional contributors to the Farmer's Department of our paper. Market Reports, Biographies, Sketches, Reviews, and in fact every thing tending to make a complete family paper, is encompassed within the design of its publishers, without regard to expense.

The Subscription Terms are for One Newspaper Weekly, One Year, One Dollar.

Club of 6 copies, ...	$5	Club of 34 copies, ...	$25
Club of 13 copies, ...	10	Club of 42 copies, ...	30
Club of 20 copies, ...	15	Club of 50 copies, ...	35
Club of 27 copies, ...	20	Club of 75 copies, ...	50

The amount of subscription must be in advance, and in no case for a shorter period than one year. Orders for subscriptions must be addressed post-paid, to

A. H. SIMMONS & CO.,
Publishers of the Dollar Newspaper, S. W. Corner of
Jan. 1—1t. Third and Chestnut sts., Philadelphia.

Agricultural Implements.

STRAW AND STALK CUTTERS—of all patterns.
CORN MILLS—both of Iron and Burr Stone.
CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.
ROAD SCRAPERS—of several patterns.
FANNING MILLS—of all the best makers.
SAUSAGE STUFFERS AND CUTTERS—of all patterns.
VEGETABLE OR ROOT CUTTERS—of approved kinds.
CORN SHELLERS—for hand and horse power.
VEGETABLE BOILERS—of Mott's and Bent's patterns.
GARDEN AND WHEEL BARROWS—of iron and wood.
HAY AND COTTON PRESSES—Bullock's patent
BRICK MACHINES—of Hall's and other makers.
WAGONS AND CARTS.
PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam PLOWS—Eagle, Massachusetts make, and Minor & Hortons.

For sale at the State Agricultural Warehouse, No. 25 Cliff Street, New-York. Nov. 1—tf.

Important to Farmers.

IT is generally conceded by all intelligent Farmers, that cutting the food for cattle will save about from 25 to 30 per cent. Bertholf's Oblique Rotary Corn Stalk, Hay and Straw Cutter, is conceded by all that have used them, to be far superior to any other, as it destroys all hard substances in the stalk, leaving it soft and easily eaten. It urns very easy, and is not liable to get out of order, and with care will last an age. It has been awarded four First Premiums and a Silver Medal, by the American Institute, For further particulars, address, (post-paid,) the Patentee, H. W. BERTHOLF, Sugar Loaf, Orange County, N. Y., or LONGETT & GRIFFING, 25 Cliff St., New-York, who are agents.

Patent Rights for sale. Nov. 1—3t.

EMERY & CO.'s

Improved Horse Power. Thrashers and Separators.

THE undersigned have been appointed sole agents for the sale of Emery's new patent Improved Horse Power, Thrashers and Separators in the city of New-York. The State Agricultural Ware-house is the only Depot where this superior power can be had. As many powers are represented as Emery's patent, to avoid impositions, be careful to observe that the name of Emery & Co., is cast in full on every link of chain and the wheel hub.

LONGETT & GRIFFING.
July 1—tf. 25 Cliff street, New-York.

Sausage Cutter.

THE general configuration of this amchine will be understood from the engraving above. It will cut one hundred lbs. of meaper hour, and the knives are so arranged as to have a continuous action. The machine, as represented above, is open, but when shut forms an inner cylinder through which runs the cylinder of pegs, operating against a spiral of knives. The meat is made finer or coarser, according to the rapidity with which it is fed. Price, wood frames with one set of knives, $5—with two set of knives, $8. Iron frame $4. For sale by

LONGETT & GRIFFING,
Nov. 1—3t. No. 25 Cliff Street, New-York.

Valuable Farm for Sale.

THE subscriber offers for sale four hundred and fifty acres of land, being a part of his homestead, and comprising two hundred acres of as desirable land as any in Addison county—lying on the main road four miles north of Vergennes on the border of Lake Champlain, and one mile from the Railroad Station. It is under good cultivation, and furnished with commodious buildings. The remaining 250 acres is wood land; a portion of it covered with a heavy growth of hemlock and other valuable timber, and the remainder with the best quality of wood for fuel. The property will be sold together or in parcels. Postpaid inquiries promptly responded to.

ROW'D T. ROBINSON,
Aug. 1—tf. Ferrisburgh, Addison co., Vt.

Albany Drain Tile Works.

No 60 Lancaster Street—West of Medical College, Albany.

THE subscriber has now on hand, Draining Tile of the following descriptions. Prices reduced.

HORSE SHOE TILE.

5½ inch Rise,	or 4½ inch Calibre, ...	$18 00 pr. 1000.
4½ "	" 3½ "	15 00 "
3½ "	" 2¾ "	12 00 "

SOLE TILE.

4½ inch Rise,	or 3½ inch Calibre, ...	$18 00 pr. 1000.
3½ "	" 2¾ "	12 00 "

These Tile are over one foot in length, and are so formed as to admit water at every joint, draining land from 12 to 20 feet each side of the drain—being the cheapest and most durable article used.

Tile sufficiently large for drains around dwellings, at $4 and $8 per 100 pieces. Orders from a distance will receive prompt attention.

Albany, April 1, 1852—tf. JOHN GOTT.

THE OHIO FARMER,

AND MECHANIC'S ASSISTANT,

Edited and Published in Cleveland Ohio, by Thomas Brown.

A FAMILY Newspaper, devoted to Agriculture, Horticulture, Mechanic Arts, Literature Domestic Economy, Social Improve ment, and General Intelligence.

The Wholesale and Retail Prices of all the leading articles bought and sold in the NEW-YORK, CLEVELAND, CINCINNATI and PITTSBURGH Markets, are also accurately reported each week.

The FARMER is one of the largest, and is acknowledged by all who are acquainted with it, to be one of the best Agricultural Newspapers in the United States.

Sample Copies will be sent to any part of the United States, if the request be made of the Publisher, by letter, post-paid.

TERMS.—Single Subscribers $2.00. Clubs of two or more, $1.50 each—*invariably in advance.*

A limited number of advertisements will be inserted in the Farmer at the rate of $1.00 per square, (ten lines or less,) for the first insertion, and fifty cents for each subsequent insertion.

THOS. BROWN, Publisher,
Merchant's' Exchange, Cleveland, Ohio.
Cleveland, Nov. 1, 1852—3t

THE Tranasctions of the New-York State Agricultural Society, vols. 1 to 9, for sale at the Office of "THE CULTIVATOR," price $1 per vol.

Contents of this Number.

Third Series of the Cultivator, ... 9
Monument to Mr. Downing—Potatoes in Tan, Plaster, and Ashes—Slaked Lime and Muck for manure, by J. E., ... 10
Farm Economy, ... 11
The Culture of the Hop, by An Otsego Hop Grower, 12
The Cultivation of Wheat on the Prairies, by W. G. E., 14
Professional Education of Farmers, by G. B Smith, ... 15
Protecting River Banks, by T. A. S., ... } 16
Good Management of Cattle—Breeding Poultry—The Dorkings, by R., ... } 17
A Decided Specimen of Book Farming,—The Pigeon Hole Borer, by James Eights, ... 18
Heavy Wheat and Oats, ... 19
Native and Foreign Fruits, ... 20
Interesting facts in Fruit Culture, ... 21
Species and Varieties Explained, by D. Thomas, ... 22
Rural Culture—The Four Finest Roses—Every Thing in its Place, ... 23
"Trump"—Trans. of the N. Y. Ag. Society for 1851—Profits of Farming, ... 24
A Specimen of Neatness and Order—Culture of Potatoes, by David Thomas, ... 25
Climbing Plants, ... 26
Vegtable Nutrition, by *, ... 27
Sowing Clover with Corn—Stowell Evergreen Corn, ... 28
Geneva Trial of Implements, ... 29
New-York State Ag. Society, ... 31
Vermont State Ag. Society—Notices of New Publications, ... 32
Dwarf or Pompone Chrysanthemums, ... 33
What shall we do for Fodder this Winter? 34
Agricultural Charlatanry, ... 35
Curing Hams—Inquiries, &c., ... 36
Notes for the Month, &c., ... 37

ILLUSTSTRATIONS.

The Pigeon Hole Borer, .. 19
Hereford Bull "Trump,". 24
Trellis for Climb'g Plants, 26
Dwarf Chrysanthemums, 33

ALBANY MEDICAL COLLEGE.

Spring Course of Lectures.

THE next course of Lectures will commence on Tuesday, February 8, 1853. and continue sixteen weeks.

Surgery—Alden March, M. D.
Theory and Practice of Medicine—James McNaughton, M. D.
Meteria Medica—T. Romeyn Beck, M. D.
Anatomy—James H. Armsby, M. D.
Chemistry—Lewis C. Beck, M. D.
Institutes of Medicine—Thomas Hun, M. D.
Medical Jurisprudence—Amos Dean, Esq.
Obstetrics—Howard Townsend, M. D.

Clinical Instruction will be given regularly during the session, at the Hospital and College.

Fees for the first course. $60; second course, $50; Matriculation fee, $5; Graduation fee $20. Students who have attended two full courses of lectures at other institutions, will be required to pay $10.

☞ Graduates of this College, and of Institutions where the requirements are the same as at this, will have FREE admission to the Lectures. Albany, Dec. 4, 1852.

Jan 1—m& w2t THOMAS HUN, Registrar.

New-York Agricultural Warehouse and Seed Store.

WE have constantly on hand, the most extensive assortment of the best and latest improved Agricultural and Horticultural Implements, and Field and Garden Seeds, ever offered for sale in the United States, embracing every Implement, Machine, or Seed desirable for the Planter, Farmer, or Gardener. Also Guano, Bone Dust, Poudrette, Plaster of Paris, and Super Phosphate of Lime. Durham, and other improved breeds of Cattle and Sheep.

A. B. ALLEN & CO.
Jan. 1, 1853—tf. 189 and 191 Water St., New-York.

Clarke's Excelsior Milk Churn.

FOR horse power, can be made of any good iron-hooped cask or barrel. The dash-board, or cross-bar and venting funnels, are set on the irons or fixed tubes, on which the barrel revolves. Prices for next season: The Crank Churn, $2 50 to $10; irons for the Milk Churn, $1 per sett. The Excelsior Churn is perfectly adapted to the wants of the dairyman, who, by applying early, can have the size they wish. Agents wanted to sell State and County rights. Apply to

GEO. B. CLARKE.
Leonardsville, N. Y., Jan. 1, 1853—w2t.*

The Country Gentleman.

A Journal for the Farm, the Garden, and Fireside.

This is an Agricultural Journal of the first class, and will furnish the farmer safe and reliable directions in every branch of his business. The growing interests of Horticulture and Fruit Growing will receive especial attention, as well as matters of Rural Taste and Economy.

The Fireside Department will have particular reference to the education of the mind, and the refinement of the social life of country residents, though a variety of miscellaneous and entertaining reading will be given. The Record of the Times will embrace briefly everything of general interest. A report of the Produce Market will be found in each number.

It will be the aim of the publisher to make the paper attractive and elegant in its typography and illustrations, choice and select in its contents—to make it indispensable to the Farmer, and desirable to every one who has a rod of ground to cultivate, or a home to beautify—and by devoting its columns to Improvement in Agriculture, Elevation in Character, and Refinement in Taste, to render the Country Gentleman the standard in its sphere.

TERMS.—The Country Gentleman will be printed in quarto form, each number consisting of sixteen pages, and forming an annual volume suitable for binding, of 832 pages, at Two Dollars per year when paid in advance, or $2.50 if not paid in advance.

Those wishing to subscribe will please forward Two Dollars to LUTHER TUCKER, *Publisher. Albany, N. Y.*

☞ Specimen copies will be sent to all post-paid applicants.

THE CULTIVATOR:

A MONTHLY JOURNAL OF

Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 *CENTS A YEAR.*

This standard Agricultural Monthly commences with the new year, its Third Series. It is published in the same superior style, and will now be more valuable than ever, as the choicest Agricultural and Horticultural articles in The Country Gentleman will appear in its pages. The price hereafter will be as follows:

Single copies, Fifty Cents—Eight copies $3—any larger number at the same rate.

All subscriptions must commence with the January No., and the payments must in all cases accompany the order for the paper.

LUTHER TUCKER,
Publisher, Albany, N Y.

Postmasters and all friends of agricultural improvement, are respectfully invited to act as agents for The Cultivator and The Country Gentleman.

United States Agricultural Warehouse and Seedstore.

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine—also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, farm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers. Jan 1, 1853—m&wtf.

Agricultural Books

OF all kinds, for sale at the Cultivator Office, 395 Broadway, Albany

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD — To Improve the Soil and the Mind. — SERIES.

VOL. I. ALBANY, FEBRUARY, 1853. No. II.

The Farmer's Influence.

THE true test of ability in farming, all the world over, is the greatest amount of success in the management of those two practical antipodes, *cost* and *result*. A man who may raise enormous crops at a cost of ten times all that these crops will repay; or who may compel his farm laborers, however industrious and efficient they may be, to work without tools, or at best, to hoe his corn with a garden-trowel, or to water his cattle in an egg-shell—would be set down as decidedly a bad manager. On the contrary, the farmer who applies his means in the best possible manner, to obtain the greatest amount of results, whether by enriching his land ultimately, or increasing its immediate products—who turns all the currents of waste into profitable channels—shows that the touch of his hand is that of a master, and that he possesses the true philosopher's stone, which turns all his applied energies into gold.

But our present object is not to point out the best way to secure large dividends from farm capital. We shall deviate for once from this almost universal track, and endeavor to show how the farmer may increase the physical and mental comfort of himself and those about him, quite as much (and by the outlay of far less monied capital,) as by simply heaping together piles of gold. The means by which this most desirable result is to be secured, is the proper *use of his influence*. "*My* influence? *I* have no influence!" exclaim a host of moderate farmers, more ambitious and restless perhaps, than they are willing to admit, and who failed to secure any nomination at the last town caucus. "What influence can *I* possibly have," gravely expostulates the more sedate country resident, "when I cannot even persuade my own boys to avoid the city, and become cultivators of the soil?" "You can't expect *me* to have any influence?" is the inquiring exclamation of the young farmer of taste, who failed in saving from the remorseless axe, a beautiful group of sugar maples which stood in the public road; and whose public spirit has been chilled by the jeers of his stupid neighbors, for proposing to line the highway with a mile of forest trees.

But our friends must not by any means despair. They possess a power of which they are not conscious, although it may not be capable of operating quite in the way they would most desire. The truth is, there are too many who are looking only for some great or extraordinary occasion to exercise their powers. They may profitably remember the fable of the sweeping mountain torrent, that was soon dry, contrasted with the perpetual rill, which always enlivened and refreshed its banks, and in process of time filled a vast lake with its waters.

In the first place, every one may exert a most healthful influence for *rural taste*. A friend of ours moved into a district of country where the people generally would have been regarded as utterly destitute of all taste of the kind. He could not persuade a single man among them to plant an ornamental tree. He however resolved to have the comforts and embellishments of country life, though of a cheap character, for his own family. His wondering neighbors began to inquire about the trees he planted, "that were good for nothing but to look at," and pitied the wretched taste which he exhibited by not placing his lilacs, honeysuckles, magnolias, and evergreens, "all in a row." But it is a characteristic of the works of true taste, that the more they are scrutinized, the more pleasing they appear; and those rude inhabitants evinced, before they were aware of it, that the latent principle of genuine appreciation of the beautiful, which had so long slumbered within them, was beginning to show itself in the little plantations of roses and shrubbery about their dwellings, that they might enjoy something of the same delightful home scenery which they had been insensibly led to admire in their pioneer neighbor. It was not many years before a great change had come over the face of the country, and many had learned that there was some satisfaction in neat dwellings surrounded by tasteful grounds.

In the next place, every one may exert a most valuable and powerful influence, in leading his children, and those more immediately beneath his care, to exalted views of the scenes around them. It does not at all destroy or lesson one's skill to manage those two refractory opponents, Cost and Profit, to look up occasionally from the plow-point before him, to the rich, varied, and magnificent panorama around him,

> From the blue rim, where skies and mountains meet,
> Down to the very turf beneath his feet;

neither does it at all require the rare gifts of the "philosophic few" to look upon

> The warbling woodland, the resounding shore,
> The pomp of groves, the garniture of fields,
> All that the genial ray of morning gilds,
> And all that echoes to the song of even,

with something of the eye of a painter, naturalist, and admirer of the wonderful and beautiful in Design. This study very soon becomes contagious. We knew a skillful cultivator of the earth, whose delight in reading the works of creation, had rendered him quite as skillful in making this study attractive to others; and when we have remembered the great numbers of young people whom he had fascinated into this pursuit, we have often involuntarily been led to contrast him with

> " The churl who holds it heresy to think,
> And knows no music but the dollar's chink;
> Who never found what good from science grew
> Save the grand truth, that one and one make two;
> And he, across whose brain scarce dare to creep,
> Aught but the parent pair, *to get, to keep*."

Again—every farmer may exert an excellent influence in his own neighborhood in many ways. By perseverence, he may accomplish much in elevating the character of the neighborhood schools—those fountains from which are to flow the very life-streams of intelligence to our successors on the great theater of life. He may promote agricultural knowledge by assisting in the diffusion of periodicals. He may often find means to contribute to the happiness of those whom sickness has stripped of physical comforts. It is scarcely necessary to point out all the ways in which a really earnest, straight forward, kind and modest man, may benefit the community in which he lives, if he is not afraid of labor, although all and even more may be done while others may be idling, talking nonsense, or attending public amusements—and it is impossible, from the very nature of things, that all this should not make a strong impression on those who come in contact. In his own family, too, his influence is still greater than elsewhere, either for good or evil. Domestic sunshine or storms are very much at the command of the head authority. A single ill-natured remark will often send its poison and contagion through a whole household—a uniform air of kindness cannot fail greatly to soften the asperities of life; and especially when, to speak colloquially, " every thing goes crooked," a few words fitly spoken, will drop like balm into the corroding irritation of bad nature, and like the atmosphere of spring, breathe cheerfulness and sweetness about those within their influence.

Now, if any one believe that the accomplishment of these duties does not greatly increase one's own happiness, to say nothing of the happiness of others, " then has he no human blood in his veins." He is one of those chrysalids of mortality, whose object in living is to suffer as little, and enjoy as much as possible, within their own shell of physical selfishness. There are others who assent to all we have said, but who commit the supreme folly of chasing the rainbow of promised enjoyment, by trying *first to get rich!* No wonder that farmer's sons rush into the city, when their country homes, with the inexhaustible attractions which *might* be thrown around them, are made repulsive, or at least dull. Fortunately, the exercise of taste in rural improvement—the study of the beauties of country life—the performance of neighborhood amenities—and the soothing influence of kindness in families—do not require the income of a duke; and he who has accomplished all these well, in addition to the skillful management of his plantation, has perhaps as just an expectation as any one, of a pleasant evening to his life, in the hope that he has not lived wholly in vain.

◆

Tull's System of Culture.

Jethro Tull, whose experiments, more than a century since, accomplished so much for drill-husbandry, and produced such wonderful results by cultivation merely, was led to adopt the notion that stirring the soil constantly and thoroughly, was alone sufficient for raising the heaviest crops, without the aid of manure. For a series of years he was eminently successful; but subsequently the soils which he had so long cropped, showed evident signs of exhaustion. We perceive, by the last number of the Genesee Farmer, (in an article probably from the pen of Joseph Harris) that S. Smith, of Northampton, England, has lately revived this practice, by a series of experiments remarkable for their perfection and completeness, and not less remarkable for the eminent success which has attended them. He keeps the soil between the wheat drills finely tilled to a depth of twenty inches. He has taken seven successive crops from the same acre, and yet we are informed that when compared with highly manured pieces of land, producing 56 to 58 bushels per acre, this "far exceeded them." One gentleman, who visited this crop, exclaimed, when he first saw it, "This land has been lavishly dressed with ammoniacal manure." The soil is stated to be a very stiff one—such results could not probably be obtained from any other. The opinion is advanced that soil so treated receives a high manuring by means of the ammonia absorbed from the atmosphere, and which clay eminently possesses the power of doing; but it may be strongly questioned whether all the elements of fertility received in this way will be able to keep up the richness of the soil perpetually. We have known heavy clay lands in Western New-York, yield heavy successive crops of wheat for a much longer term of years than in the experiment above stated, but yet the time for deterioration finally came. There is no doubt, however, that farmers generally sustain a prodigious loss by a want of the sufficient pulverization of heavy soils, which, by the way, can be only effected after thorough drainage.

Use of Lime and Marl.

The English agriculturists have used lime extensively, and for a long time, and have acquired a great deal of experience relative to its application. At a lecture recently given by Professor Nesbit, before the *London Farmers' Club*, he stated a number of ascertained facts, which, briefly related, may be interesting to such of our readers as desire information on this subject. In speaking of *liming and marling*, he said it made little difference, generally, whether calcareous matter was applied in the form of chalk disintegrated by frost, marl, quick-lime, or disintegrated limestones. Limestone is burned, and thus reduced to fine powder—it very soon returns to a carbonate, precisely the same state as before burning, except that its mechanical condition is entirely changed to that of fine powder. This, he regards as the chief object of burning. For lime acts beneficially for many years in a soil, long after all traces of its caustic nature have disappeared.

Some limestones contain considerable quantities of potash and of phosphate and sulphate of lime, which sometimes add much to their value. Here analysis becomes of great use.

As to the rationale of its action, he regards it as operoting in several ways. First, in dissolving the alkalies, for the use of growing plants, a result which had been found by trying the experiment during a period of six months in the laboratory. Secondly, in effecting a slow decomposition of organic matter in soils for the same use; which is strikingly shown by the fact that new land, or newly broken fields, are altogether the most benefitted by its action. The same operation takes place upon manures in the soil. The ammonia which has been absorbed, is fed to plants through the assistance of lime. Hence on hard-cropped land, which has been nearly exhausted of organic constituents, lime is of little use.* On the other hand, if soils are deficient in lime, even a manuring of guano, will be of little comparative use. "If you go to such a place as Exmoor," says Prof. Nesbit, "where the land has not been turned up within the memory of man, and where the soil contains only enough lime for a chemist to swear by, you will find the use of any other manure of no avail without it. I have observed myself, on certain parts of that moor, where lime had been put, turneps were splendid; but the instant you passed the line up to which the lime had been applied, the crop entirely failed. If you were to take a handful of slaked lime, and inscribe your name on the soil, you would be able to trace, three or four years after, the exact spot where it was marked." He quotes the old proverb as containing much truth—

> "The use of lime without manure
> Will always make the farmer poor."

He states, (what has also been discovered in this country,) that there may be a complete absence of lime in soils resting upon limestone—and mentions cases where the limestone has been within six inches or a foot of the surface, and not the thousandth per cent of lime in the soil itself; and adds that in some of the south-eastern counties they are actually chalking the Chalk Downs to great advantage.

Large and Small Potatoes.

W. R. Coppock, of Buffalo, well known to the horticultural public, in his late address before the Erie County Agricultural Society, gives his views and states the following facts, which we believe will fully accord with general experience, always excepting the influence of drouth, which in some instances will wither and dry up small portions of "seed" potatoes, before they have imparted sufficient moisture to the young plant, and which is the reason why uncut potatoes are sometimes the best:—

> It has been a mooted question in growing potatoes, whether it was an essential, as with other seeds to plant the finest and best matured tubers for seeds, adopting the maxim that "like produces like." This point I feel satisfied I have fully tested, and as it is one of pecuniary interest to the farmer, I take this opportunity of declaring the results of my numerous experiments. In the first place we have erred in supposing the tuber to be true seed, which it is not; the seed being in the ball. The potato or tuber being merely the underground root,

---

* Prof. N. also states that lime is of no value on undrained land.

and increased by elongation. This being the fact there is no analogy in the maxim, and results fully prove there is not a necessity to plant large potatoes in order to produce large returns.

I have grown good crops, particularly of the coarser varieties, by planting simply the parings, as taken off by the cook; but in this case, by throwing so many eyes into a hole, although numerous, they were mostly small.

The present season, I planted two acres of the pinkeye varieties. The rows were twenty rods long. The seed selected of the undersized or medium, excepting six rows which were of the smallest kind, usually called pig potatoes. I sort my potatoes into three sizes, thus—large, for sale, medium to small, for seed, and the balance, none larger than an inch in diameter, are boiled for the pigs, poultry, &c. Being short of seed for the ground prepared, I ordered these cullings, not larger than a common marble or hickory nut, to be used to finish out with. The result is, these six rows are equal in every respect, and by the diggers thought to be better, than any other portion of the whole plat.

Form of Ox Yokes.

Nearly every person, on looking at these two figures, would give a decided preference to the upper, because it *looks better*. True, *Hogarth's line of beauty* is largely introduced into its outline; but the line of beauty, however excellent a pattern for gravel walks and ornamental furniture, is hardly the right principle to govern the form of substantial farm implements. Indeed, we have often observed with suprise, that lightness and strength are sacrificed in a considerable degree, in making ox-yokes, to what appears to be nothing but mere fashion—a poor place for its introduction.

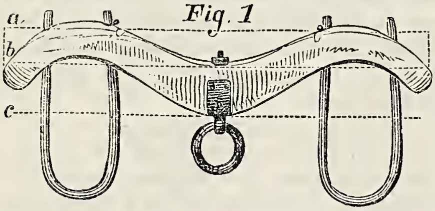


Fig. 1

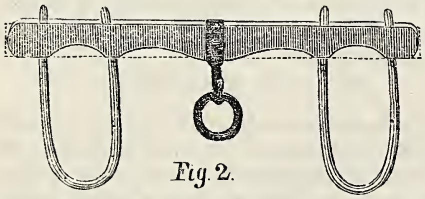


Fig. 2.

Fig. 1, represent a form which is very common throughout the country; but the reader will observe by the lines *a b*, that about three-fourths of its real strength is destroyed by the deep hollow in the middle, and that there is a useless ornamental hook at each end. As a necessary consequence, an increase of weight must be given, to compensate for the lack of strength. The result is, every farmer's boy, possessing less than man's strength, has a dread of the task of yoking a pair of oxen, because he cannot, without great effort, hold up the heavy yoke. Added to these difficulties, is the time consumed in hewing, and the timber required for material, a breadth equal to *a c*, Fig. 1.

Fig. 2 represents an improvement. This yoke may be quickly made of a scantling, 4 by 6 inches, answering all the purposes accomplished by the other, and having only one half its weight. An iron strap for holding the ring, passes round the center, which is not weakened by the usual mode of piercing for the iron bolt. The point of draft may be regulated by the length given to the iron shank holding the ring. What this length should be, has not, we believe, been very accurately ascertained. If the ring is high, nearly all the draft will press upon the top of the animal's neck; if too low, the bows will be drawn back with so great a force as to choke him. The proper medium—throwing most of the draft upon the neck above, relieved however by a proper degree of pressure by the bows—cannot be determined by the dynamometer, but only by close observation of the effect upon the team, while using a yoke which has a ring capable of being raised or lowered by means of a screw. This is an experiment well worthy of trial; for it will make a considerable difference in the farmer's profits in ten years, whether his oxen are enabled to draw with a force of four hundred pounds with a well-made yoke, or only three hundred by means of a bad one—a consideration quite as important as that of an easy-running plow.

Can Farming be Made Profitable.

Mr. Tucker—In the November number of the Cultivator, there is an article signed "Mercutio," which comments severely upon the occupation of the farmer. Now, although the language used is perhaps too strong to agree with facts when properly stated—yet there is certainly much truth in the idea advanced, that as things are now, comparatively speaking, little money is made by agriculture. But this does not arise as is usually supposed, from capital invested in agricultural operations paying so poor an interest, but from causes to which we shall presently advert. No class of men labor harder than the farmers, and no class are more deserving of the reward of that labor; if, therefore, we are not getting that reward, some measures ought to be taken to secure it to us. That the subject of the profit of farming is beginning to attract attention, is a good omen; it is a subject it can do no harm to agitate; it will elicit truth, and truth is what we always welcome. We cannot believe with Mercutio, that agricultural editors are to blame about this matter; they are but the expounders of public opinion, and we cannot conceive why they should wish to cloak the truth. If farmers make no money by their calling, and agricultural editors are aware of the fact, it ought to be their duty, and would certainly be to their advantage, to set the matter fully before the farming population, and do all that lay in their power to advance the interests of those to whom they have devoted their time and talents.

As to the observation that farmers would be better off to sell their farms and invest the proceeds in bonds and mortgages, we are somewhat surprised, made as it is, without any reservation that their *time* is to be otherwise employed. Certainly it cannot be that the intelligent man of Massachusetts meant that farming was worse than doing nothing. Does he mean to say, for example, that $3,000 invested in bond and mortgage, will give a man and his family a better living than $3,000 invested in a farm upon which is expended his labor and that of his family. Our experience in farming does not teach us that it is a very money making business generally, but surely could we think that it was worse than doing nothing, we would no longer bend our weary backs to labor, but sell out at once and enjoy our ease—for although we think all men ought to labor, either with head or hands, yet we think that the laborer is at least worthy of his hire. In arguing out all matters of a like character with the one now before us, care should be taken never to be carried away by a partial view of things, but to endeavor as much as possible to keep every point in view. What may at first sight appear perfectly evident, may upon farther investigation be found to be incorrect.

In all farming operations so much depends upon skill, industry, management and markets, that the fact that one man makes money, and another does not, is at best uncertain data. There are many other things, too, involved in this point of living and making money. What to one man is a *comfortable living*, to another is simply *existing*. One man would lay up money fast, while another would, with the same income, spend it all. Perhaps no calling in the world demands earlier education and training to it, in order that it may be successfully pursued, or its labor easily performed, than farming. Any man may satisfy himself of this by seeing the ease with which a person early trained to agricultural labor performs it, while to him who has entered into the calling late in life, no amount of attention enables him to work with the same ease and slight.

Farmers at the present day may be divided into three classes. The first, or primary class, are those who have been trained to their calling from childhood. They imbibe habits of industry, economy, and practical skill, with the first dawning of the mind. Labor to them comes, comparatively speaking, easy; with strong arms and resolute hearts they encounter the physical obstacles which lie in their paths and overcome them. They subdue the forests, build houses, enclose lands, plant, sow and reap. These men know but little of fashion and the arts—they seek not for wealth and luxury—their wants are few and easily satisfied; a comfortable home, a small competency; these are what they seek for—these are what they usually gain. This class of farmers usually start the world with little or nothing. The little money they may chance to possess and get together, is invested as a partial payment on a farm; they then go to work upon it, live, (not as a general thing upon roast turkey and oysters,) pay their interest, and finally succeed, after a term of years, in clearing their farm of debt. Now, that these men do not make money very fast, is not remarkable. Think of the difficulties with which they have to contend; frequently two or three months labor out of the twelve, is given to the item of *interest*,—labor against capitol. The great error they generally make is in buying too largely. Did they but concentrate their money and their energy upon smaller farms, their success would, in nine cases out of ten, be much surer, and their toil much easier. When the principle of a more perfect system of tillage, and the concentration of labor over a smaller space, becomes better understood, we feel sure that it will work a revolution with this class of agriculturists. Of the extent of the indebtedness of working farmers generally for the farms they own, few men out of the business are aware. We will not hazard a conjecture here as to the amount, but have reason to know that it is very large. When, however, it happens, as it sometimes does, that men belonging to the class named, start in the world with a clear field before them, owning their farms free from all incumbrance, we have rarely known them to fail of making a good per centage on their agricultural operations.

To the second class of farmers, belong a set of men who were not brought up to the business; they were educated and trained to other pursuits, but having a taste for country life, and having perhaps become tired of the vicissitudes of trade and commerce, they have bought farms and retired to the country. In nine cases out of ten they know nothing of their new business; they bring to the country tastes and habits belonging to city life. Their wives and children are fond of cultivating fruits and flowers, but they have little knowledge of, or little taste for the hard work of a farm.

In fact, the idea that all the parties concerned have, is, that they are simply to enjoy themselves with the pleasures of rural life, while the labor of the farm is to be done by hands hired for the purpose. As to even overseeing the work, that would be a matter of no account, for they are unable to tell whether it is done well or not. Such men must always buy everything they learn from experience, and as the old proverb truly says,

"Experience keeps a dear school."

Now, it seldom occurs that the class of men to which I am alluding, find everything about the farm which they have bought, to suit their ideas of taste and order, and immediately they begin to build and improve. The house wants modernizing, the out-buildings want repairing, the fields fencing, and a hundred other things want doing—all of which, after they are done, are found to have cost more money than the owner had any idea of, for few men are good calculators about any of the improvements to be put upon a farm. Ere long they find their capital expended, and in very many cases that capital has been expended not on the farm but in the buildings. What, then, with their own expenses, which are generally pretty heavy, and the cost of hired help to work the farm, the balance sheet at the end of the year foots up badly for them. They hope to do better the next year, but alas, there is much to be learned,—they cannot master the art of farming in a year.

The great agricultural wheel turns round once more, and shows but little change for the better in their affairs. They become discouraged—work drags—it is monotonous, wearisome—the society around them, too, is not congenial, and in winter especially, the country is lonely—and to crown all, they find no profit in farming. What shall they do? Sell, and go back to business in the city. A wise conclusion, truly. The great mistake made was in undertaking what they knew nothing about, and entering into an occupation for which they were unfitted by taste and habits of life. Men seldom make much, even in the walks of trade and commerce, when they leave the business to which they were trained, and go to another; why should they expect to make money by agriculture, when they are unable themselves to perform the labor it requires, and are unacquainted with its fundamental principles.

The third class of farmers consists of men of capital, who have made money by speculations or some kind of business, and have retired to the country to spend a portion of it in embellishing a rural home, and gathering around them the tokens of rural taste and rural art. These are the men who send abroad and import cattle, sheep, swine, &c., at a great cost; who build, improve, and adorn; who make the desert wilderness blossom as the rose.

That they are ever so foolish as to suppose they will receive dollar for dollar for everything they pay out, we do not believe. We presume they have tastes to gratify, and are willing to sacrifice dollars and cents to enable them to do it. We rejoice that there is such a class of men among us. We love the country and rural life, and if we cannot indulge the luxury of beautifying and adorning home, beyond what we can do by the labor of our own hands, we are truly glad to have the beautiful homes of others to look at, and to feel that there are those in our midst who think there is something superior to the dollar. The beauty of nature and of art are to us fruitful sources of contemplation, and although we cannot live by them altogether, as they do not furnish meat and drink for us, yet beauty, like an angel's presence around us, aids in lightening the labor of our lives.

We have now given what we believe to be a true picture of the three classes of farmers around us.

The first, we see have difficulties of no common order to struggle against, but notwithstanding all, do generally succeed in making something.

The second class, from habits and education, are generally unfit for the vocation they have chosen, and consequently seldom succeed.

The third class enter into farming and rural life as a matter of pleasure, not profit—and consequently do not expect to make any thing out of their farming operations. Still we have known instances among this class of farmers, where the judicious investment of capital has resulted in returning a fair interest.

It is our purpose now to consider briefly some of the obstacles which lie in the way of the farmer, and keep him from successful competition, so far as making money is concerned, with those engaged in trade and commerce. First let me say that the difference between the profit upon *actual capital and labor*, invested in agricultural, and that in mercantile pursuits, is not as great as men usually appear to think; the cause of the difference in the footing up of the balance sheet of the two at the end of the year, is simply that the farmer has the opportunity of turning his capital but once a year, and that what he uses in the course of his business, is *actual capital and labor*, while the merchant and trader, through the facilities of the credit system, trades in eighty cases out of one hundred, on an almost entirely *fictitious capital.* A man actually worth but $3,000 may do business to the amount of $30,000, and in fact does often do it. The whole system of trade as carried on at the present day, has too much of recklessness in it. We maintain that no man has a right to make his fortune by hazarding that of another. What does the fact of eighty men in business out of one hundred, failing in the course of fifteen or twenty years, show, but recklessness in trade. A man who is worth nothing himself, gets into business by the aid of endorsements from his friends; soon, through them, his credit is established, and others aid him; his friends then withdraw their aid. He gets the name of having *business abilities*, which generally means, according to strict truth, that having nothing to lose himself, he dashes away hap-hazard, at buying, and selling, and speculating. If he makes, all is well; if he loses, and a failure is inevitable, he gets his creditors together and makes the best settlement he can for himself, and then goes on again with his business, as if nothing had happened. If this man of trade lived in a two story house before his failure, but a few years roll round ere he gets into one of three stories; but after being so fortunate, does he scarce even think it worth while to settle up his old accounts, that have been cancelled by a release from his creditors, to enable him to go on with his business? We say *seldom*—so seldom that a man who does it is a marked man; marked for his *honor* and *integrity*—and for a deed which is only one of common honesty, he is made the recipient of *silver pitchers* or *an elegant gold watch*. And then, when a *great panic* comes, and a general *blow up*, arising from everybody trying to get rich too fast, men are despatched to Washington, and the state legislatures, to legislate how debts can be got rid of; and bankrupt laws, &c., come into existence to meet *the great emergency*.

I well know that there are many high-minded, honorable men engaged in business. We wish to wage no war on men, but simply refer to facts which any man may satisfy himself of by looking around him.

Let us now turn to the position of the farmer. His operations are confined to a small compass—his capital and labor bring him but one dividend annually. He has no opportunity to speculate in stocks or real estate, even if he felt the disposition to do so. The merchant, the lawyer, the doctor, have chances for these things if they wish to avail themselves of them, and they do so in numerous instances, but the farmer has nothing of this kind to fall back upon. His sphere is labor. He fulfills the commandment of earning his bread by the sweat of his brow. If he wants money, he must give ample security—bonds and mortgages are principally required from him. Let him but prove unfortunate, he cannot pay 25 or 50 per cent, and then go on again with his business, but foreclosure and sale come; he must give up all and seek some other way of getting his livelihood. But there is another difficulty of no small magnitude, which the farmers have to contend with who live within marketing distance of large cities, where land is usually high, and consequently more capital must be invested in farming operations, namely, the fact that too many people live out of them. Now, we are willing that all mankind shall live, but we do not feel exactly willing that they shall live out of us, demanding, as they do, the lion's share. What we mean is simply this: we send produce to New-York city by the boats, railroads, &c.; the produce is bought there by various individuals, and it is sold again in turn by them. It thus passes through several hands before it gets to the consumers; so that a barrel of apples, for example, which brings the former but 75 cents at the boat, is sold in the market for $1.50. Consumers in the city think the farmers are obtaining great prices for their produce, and must be coining money, little thinking that men with perhaps not $200 in the world invested in their business, and merely the trouble of buying and selling, are standing between them and the farmers, and are making a greater profit than the farmer, who labors hard and has a capital of several thousand dollars invested in his business. Such evils could be corrected without much difficulty, and without infringment upon the rights of any man—and they should be.

Too much hard work for the money earned, is the general cry against farming; and there has been, in days past, and still is much truth in it. Let any man spend some time in an agricultural district, and see the labor of men, women and children, and we feel sure he will be disposed to join the cry; but we hope for improvement in this respect. Farmers are becoming better educated than they have been, and with education will come wants and tastes to be gratified; and with education, too, will come the ability to gratify those wants. We do not mean to say that we ever expect or wish to see the time come when farmers will desire to live according to the fashionable mode of living in our large cities, but we do desire and pray for the time to come when they will, as a mass, be educated with the manners and feelings of true gentlemen, possessing, too, the learning and ability to make their wants known, and to demand the rights which belong to them as owners and occupants of the soil of this vast Republic. We would see farmers not lords of the creation in *name*, while they are truly slaves in *deed*, but elevated to their proper position. It can be done—it must be done. We feel that now is the time to press this matter upon the attention of the farmers. The movements for our benefit must originate with us; certainly no other class of men will undertake them for us. A convention of farmers called to meet at Albany, at some future day, when no other business would be before them to distract their attention, would be productive of much good. So much dissatisfaction is expressed from many quarters, about the profit of agriculture being altogether inadequate to the labor, that we would gladly see where the fault is, and have it corrected if possible. Our own humble opinion is, and always has been, that we hold the power in our own hands to rectify all the difficulties, providing we use it properly. The nineteenth century has brought changes to all classes of men. Progress is the order of the day. The farmers can form no exception to this rule. A choice lies before them,—it is simply this, either to rise by education to their lawful inheritance, or to lose it through ignorance, and to remain forever mere "hewers of wood and drawers of water." H. C. W. *Putnam Valley, N. Y., Dec.* 17, 1852.

Fall Plowing.

We seldom look into an agricultural paper, in the later months of autumn, without seeing fall plowing recommended for spring crops. Believing this advice to be, in most cases, injudicious, and founded upon erroneous principles of agriculture, I shall offer a few suggestions in support of this opinion.

The great stimulus to every form of vegetation, so far as the soil is concerned, is admitted by all to be the quantity of organized matter in the soil, in a state of disorganization or decomposition. Now, irrigation and pulverization of the soil, promote the disorganization of those organic elements, and render them active for the development and support of vegetation; and if there be no crop upon the land to receive that stimulus, or if the surface of the land be not in some way protected, so as to prevent the escape of those fertilizing elements, rendered gaseous by the process of decomposition, they are, in a great measure, evaporated and utterly lost to the soil. Hence, land is impoverished nearly, if not quite as much, by fall plowing, preparatory to a spring crop, as though a crop had actually been taken from it without any return.

Land may, perhaps, be tilled a little earlier in the spring for the fall plowing, but, in Ohio at least, it can be tilled early enough for corn, spring wheat, oats, &c., without this impoverishing preparative. At any rate, where autumn plowing facilitates early culture, under-draining would be far more beneficial, and not open to the serious objection which we urge against the measure under discussion.

It is thought, by most of the advocates of fall plowing, that it destroys the cut-worm, so injurious, sometimes, to the corn crop. But this, I think, is questionable. Though the worms be exposed to the action of the elements, yet I submit the inquiry, how long would it take them to penetrate again beyond the reach of frosts? And would not their unerring instinct prompt them to avail themselves of this sure protection? Be this as it may, in reference to the cut-worm, one thing is certain, and many farmers have experimentally learned the fact, that fall plowing injures the soil as effectually as it does the worms.

It is said that fall plowing renders the land much easier tilled the coming spring; this, in reference to some soils, is doubtless true, and is the only real advantage the system possesses; and this certainly ought not to weigh against the attending evils. O. C. Gibbs, M. D. *Perry, Lake Co., Ohio.*

Making and Saving Manure.

Mr. Tucker—A great deal is said and written now a-days, about making and saving manure—a subject in which every man who has an acre of ground to till, is more or less interested. And as manure is truly the sheet-anchor of the farmer's success, it becomes an important question with him, how to get the most of it.

Being well satisfied with the result of several years practice in manufacturing my horse manure and litter, into good, first quality of manure, I thought I would communicate my experience to you, that you might lay it before your readers if you should think it best.

In the first place, let me say that my hogs are confined to the pen, and a small yard in the rear of it, nearly the whole year round, (my breeding sows only being allowed to range in winter.) My horse barn stands adjoining the pen and one side of the yard. The manure from the horse stable is thrown directly into the hog-yard. The hogs are allowed the liberty of the yard, and so the horse and hog manure, and the litter of both, go together. The yard has been cleared so often, that the earth has been taken out more than a foot deep, and it will hold water like a dish; and the water that falls into the yard, with the urine of the animals, keep it well saturated most of the time. Occasionally we scatter a few quarts of corn over the yard, and the whole mass will soon be turned up-side-down by the industrious pigs; and in this way I can have it turned just when I wish.

The whole is allowed to remain in the yard through the summer, and in the fall I find it all rich and rotten manure. The horse manure, which otherwise heats and dries so much, and by evaporation loses half its fertilizing properties, without a great deal of extra labor is bestowed upon it, is now thoroughly mixed with the hog manure, and all is improved thereby.

By a liberal supply of bedding to both horses and hogs, one may increase this heap to several loads for each animal kept.

When straw is not at hand, a resort to the woods for leaves as bedding, is an excellent substitute, and they are certainly within the reach of all. I have drawn several loads of them this fall, and find them good for bedding. Any one who has not tried it, will be surprised to find how easily and quickly they are obtained. Yours respectfully, COMPOSTER. *Richfield Springs, N. Y.*

The Advantage of Agricultural Reading.

MR. TUCKER—It is a trite remark that every kernel of corn helps to swell the heap. So is it with the mass of intellect in the world. Every individual mind helps to increase the common stock of knowledge more or less. This fact is my excuse for presenting my thoughts thus publicly to notice.

My relish for your publications is unabated, and if possible keener than ever. I regard agricultural publications as the great medium for the interchange of thought and experience between farmers, and the most efficient means of uniting in the improvement of our profession, the bone and sinew of the country. Farmers are not a visiting class, and our paper is the only means of cultivating an acquaintance and informing ourselves of each other's progress in the culture of the soil and the mind. Others may say what they please, but to my mind it is certain that agricultural journals are the beacon-lights that point out the shoals and breakers to the young, reassure the experienced, and guide us safely to success.

Does any one ask for proof of this? I will answer by asking in turn a few questions. Where did I first get the idea of sub-soiling? and what induced me to purchase that *old* sub-soil plow that had stood for years in a neighbor's corn house, unused, uncared for, and unappreciated? I am indebted to my agricultural reading for the suggestion, and all the good results which have grown out of the practice of sub-soiling are to be credited to that. I believe I was the first farmer in the town of Scipio, who sub-soiled a field, and for some cause several others have followed my example, and our merchant has ordered and sold a load of sub-soil plows since. No one who has used one could be prevailed upon to part with it.

Again, what led me to excavate beneath my stable and build a manure factory, worked principally by shoat power? Why is it that this cellar needs clearing of good manure so often? How did I ascertain that muck, leaves, and rotten wood, would restore a lumpy soil to fertility? I might ask many such questions, but it is enough for me that I did ascertain these things, and that I find it a deal of labor to take care of the means of fertility thus in my command.

Why was I induced to try an experiment with guano, the first which scented the atmosphere of old Scipio, and can now testify to its fertilizing properties? Perhaps by this time I shall be called an egotist, but I deny the charge, and insist that far from boasting and expatiating on what I have already learned and done, I feel my comparative ignorance, and want more light and knowledge,—more strength of intellect. I expect to gain these by agricultural reading, and reflection on what I read. It is a pleasing thought to know that we can enrich our fields and our minds, and reap in greater abundance if we will. CHRISTOPHER E. ROFFEE. *Scipio, Cayuga Co., N. Y.*

Self-Styled "Scientific Agriculture."

It was with cordial feelings that I lately read in the Nov. No. of "The Cultivator," page 365, vol. 9, an article over the signature of Cultor, which, in some respects, so coincided with my ideas, that I thus express my approbation, and encourage the writer, (though wholly unknown to me,) to renew his criticisms whenever there shall be so much cause for them.

I was lately handed a specimen number of an agricultural periodical, which promised to be a valuable visitant to our rural class; but one article caught my attention, and cast a shade upon the paper. It solicited communications from its subscribers, with an assurance they should be published, without regard to their conforming to the views of the editor—but be left for the judgment of its readers to decide upon their respective merits and demerits.

Now, while I am in favor of a proper liberality on the part of an editor, who is not expected to endorse every article in his paper; yet I fear much of the harm caused by, and prejudice against agricultural periodicals, have arisen from a want of a more vigorous and discriminating scrutiny into the merits of articles designed for the public, before they are allowed to be placed before it, under an implied semi-official sanction of the editor.

Allow me to suggest to such of your readers as are also writers for agricultural periodicals, and who have not perused the communication of "Cultor," to turn back and carefully digest it—and even a second perusal will, I think, essentially benefit some writers, provided they properly profit thereby.

I have been a constant subscriber to, and reader of the Cultivator, from its first establishment by the lamented Judge BUEL, up to the present time, and I have uniformly, as I have had occasion, spoken of it, as upon the whole, decidedly the best and most ably conducted agricultural journal in our country, and have had much to reget in the demise of some of its ablest contributors.

I have always been an ardent advocate for the improvement, elevation, and prosperity of those engaged in that most useful, substantial, and noble pursuit of mankind—an enlightened agriculture; and also a friend and supporter of "science and chemistry" in their proper connection with agriculture.

Yet I have thought that there has sometimes been a too prominent position *assumed* among agricultural writers, by a class of persons, who, after having been *successful* in speculative, mercantile, or other pursuits, retire to a rural life, thinking they know *more* on almost every subject than their brothers, who, not having forsaken the calling of their fathers in the days of their youth, but with increased facilities of education, and a proper application of their talents, have devoted their energies so the advancement of the great cause of agriculture. Some of these, I fear, too often consider themselves qualified to communicate their ideas and their theories—or their (limited) *experience*, which not unfrequently leads astray. I do not believe, that because one gentleman has been successful, even eminently so, in one business, that of course he needs *must* be in all other branches.

Our agricultural journals are increasing over our land, which is a good sign; and my desire is, that an increasing care may be exercised in increasing the merits of their productions. And as the rural class are emphatically industrious, and many of them have but a limited portion of their time for reading—and that reading necessarily more or less varied in its character, it is not so much the *quantity*, as it is the *quality*, that is wanted by them. N. *Dec.* 1852.

The Zimmerman Wheat.

As I do not recollect seeing any notice in the Cultivator, of a favorite wheat of this county, I shall give you a short description of it.

The Zimmerman Wheat was first propagated by Mr. Henry Zimmerman, about four miles southwest of Frederick, Md., about fifteen years ago; he discovered three heads of singular wheat in the edge of one of his fields. When ripe he gathered them, and the following fall sowed their product carefully between two ledges of rock, where the ground mice destroyed most of it, and it only yielded, the second year, about a dozen heads. Their product was again sowed, and the yield was, the third year, about two quarts; fourth, nearly a bushel; fifth, about 10 bushels; the sixth, between 60 and 70 bushels, after which it became public property. When standing in the field ripe, it is undoubtedly the handsomest wheat grown in this part of the states. The stalk is very erect, head square and plump, without beards; grains close set, very round and plump—of a rich yellow when not injured by the fly, (to which it is considered very obnoxious.) It will perhaps out-yield any wheat grown in this county. It has a strong resemblance when growing, to a wheat formerly grown here, called the "Rock Wheat," but it ripens earlier, and is not, like it, subject to rust. I have had the above description of its propagation from the mouth of the old gentleman, who, as he says, is "the author of that wheat." Respectfully yours, Wm. C. Hoffman. *Pomona, Frederick co., Md., Dec.* 27, 1852.

Experience in Raising Corn.

Mr. Tucker—My farm lies on the Esopus Creek, near Kingston. When I came in possession, some seven years since, about twenty acres were in corn, and I was informed by my neighbors, that the same land had been cropped with corn for several years witout any manure. I planted the same land every season without manure till the present,—plowed and hoed the corn twice in the usual way, and at harvesting always found the field full of weeds and grass, the crop of corn ranging from forty to sixty bushels to the acre. Last spring I came to the conclusion that however good the soil, so many weeds must be injurious to the crop, and determined to give the corn my personal supervision, and see if I could not obtain a larger crop. I accordingly top-dressed about seven acres, of the twenty, with five loads of rotten manure to the acre, harrowed the whole field carefully, and planted the corn from 20th May to 1st June, three feet apart each way. Remembering a remark made years ago, by one of my neighbors in Duchess county, that 5 or 6 thorough plowings were as good as a coat of manure, I thought I would try the effect of this treatment on my corn. I put into my field two plows, (half mold-board) and two cultivators (Elmendorf's, the best I have seen,) and contiued to use them, with hands to hoe the weedy, grassy spots, till the corn became so large that we could not work with a team without injury, when all hands went over the entire field with hoes, cutting up all the weeds which had escaped. When this was done, the corn was topping, and the whole lot was as clear of weeds as an onion bed ought to be.

I may remark here, that the cultivator should follow the plow, as in this way the plow enables the cultivatior to clear everything before it, and leaves the soil more mellow.

On the manured land the stalks were more bulky, but on the unmanured part the yield was equally good. The corn is now husked and cribbed, and after fattening eleven hogs and an indefinite number of poultry, there is left, as the product of the twenty acres, 1,450 bushels of shelled corn, which I have ascertained by the usual mode of multiplying the length, breadth and depth of the crib together, and that product by 4½, and cutting off the right hand figure, which gives the bushels and fractional part of a bushel. In the measurement I made due allowance for shrinkage. Add to this 100 bushels, supposed to have been consumed by the hogs, horses and poultry, and an average of over 75 bushels to the acre is shown. I must add in justice to the land, that about two acres were badly injured by the crows. I have from forty to fifty tons of stalks, and some forty loads of pumpkins.

I attribute this excess of yield over that of former years, to the continual turning up of fresh surface to the sun and night dews, and in some measure to keeping the weeds down. My neighbor, with land equally good, cultivated his corn the old way, and while I had four horses with plows and cultivators at work, he had eight or nine men digging and hoeing, and but one plow. I think his crop did not average over 50 bushels to the acre, and I am sure his work cost more than mine.

I am certain that from 20 to 25 per cent. can thus be added to the yield of corn on any land. There is no more profitable crop raised in this latitude, and none so carelessly cultivated. We plant it, scratch the ground a little with the plow, and a few boys follow with the hoe. This process twice repeated, and the work is done. Perhaps the soil has never been disturbed around half the hills by plow or hoe, and the result is, some 20 or 30 bushels to the acre in one of the best corn districts in the State, when by proper culture the yield might be more than doubled. Geo. A. Shufelot. *Fox Hall, Kingston, N. Y.*

The Intellectual Position of Farmers.

A recent communication from an intelligent farmer in Ohio, contains the following spirited remarks on the odium which certain pedantic writers attach to the literary efforts of the "smellers of the soil:"

"Scholars and authors not unfrequently amuse themselves at the expense of the diligent, thoughtful farmer. A recent work, by Mr. Bayle St. John, has placed the world under obligation for a bright idea. Speaking of certain Egyptians, he says, 'Like all agricultural races, their intellects are slow and somewhat obtuse. The smell of the earth has in no country a favorable effect on the development of mind.' Well done, Mr. Bayle, Nichol, John! Now, 'doff the lion's hide, and hang an ass's skin on those conceited limbs,' and you will stand forth in your natural form. To characterise such remarks, as flippant folly, would not be unjust or uncharitable. To those who have more leisure and ability, I leave the task of teaching the *saintly* gentleman in what estimate "the smellers of the earth" were held, in the palmiest days of Greece and Rome, and among all other people, in proportion to their advancement in virtue and enlightenment.

George Renick, Sr.

I do not propose to give an extended biography of the individual whose name heads this article, nor to narrate many of the incidents of his life. My only object is to speak of one or two of his prominent acts, which will suffice to show that a plain, unassuming, unambitious farmer, may confer great benefit on his country. There is nothing grandiloquent in a farmer's life. On the contrary, how calm the inception, how gradual the expansion of the cultivotor's designs! For him there is no sudden realization of hopes. In silent thoughtfulness he prepares the ground—in his mind deep plowing and careful harrowing produce fruitfulness. From the budding to the ripening of his mental growth, his mind goes straight onward to its conclusion. But on account of this slowness of development, this leaning on and learning from Nature, he has sometimes been called a dull plodding drudge.

To the young husbandman just setting out in life, I might say, behold in George Renick your model. Learn from him that a fruitful intellect may dwell with modesty and merit. And if you would be riveted in attachment to the noblest and most ancient of avocations, be assured from his history, that content and plenty will ever be the reward of him who assiduously cultivates both the soil and the mind. Such a farmer is above and beyond the feverish itchings for fame and notoriety.

In the winter of 1804–5, before turnpikes and canals afforded an outlet for the vast grain surplus of the rich bottoms and plains of the West, the prospects of the farmer were gloomy and unpromising in the extreme. Hogs roamed at large, and fattened without the care or solicitude of their owners, on the superabundant waste of the forest. The small villages of the thinly settled country, could scarcely consume the beef which one good farm was able to supply. And if every log cabin in the country had been a distillery, and every man, woman and child, had drank their own home made whiskey like mother's milk, they could not have consumed the products of their groaning corn-fields. The nominal value of that bane or blessing of man, as it happened to be in a liquid or solid state, varied from ten to six cents per bushel. At his juncture Mr. Renick determined to make an experiment, which his friends and relations deemed little better than burning his corn in the field.

Unmoved, however, by their doubts, he fed a lot of cattle, and started them on an untried road, to a market beyond the mountains. How long it would take, or how they were to be fed on the way, or in what condition they would reach their destination, no man knew. As the first fifty cattle ever fed on the Scioto, or in the great valley of the Mississippi, were turned out of their pasture, one of his commisserating friends shook his head, and said, " There goes poor George's forlorn hope." Forlorn hope it was, but a glorious victory perched upon its banner. The undertaking seemed desperate, but was eminently successful. To make his triumph the more complete, his trial was the more severe. When they reached Baltimore, he was no longer surrounded by friends who spoke their fears in whispers. To the inexperienced eye, the cattle were sore, hollow and poor. No one would buy. The butchers scouted his offers to sell, even at reduced prices.

With that patient and quiet courage which has ever marked the man, Mr. Renick ordered two or three of the most indifferent of the cattle to be slaughtered, at his own expense, and the butcher was directed to give the meat to his customers, if he could not sell it, at his stall. A fact was made known, and a valuable lesson was taught to the butcher and consumer. That meat was " the best for its looks they ever saw." The lot was sold; another and another followed. Now, all is plain and easy. " Any one could have done that." So thought and said thousands who have followed Columbus to the New World. Nor was there any mystery in making the egg stand up, after the great discoverer had showed them how to crush the end. The "forlorn hope" was the pioneer band to hundreds of thousands of fat cattle, which have gone from the Great West to the markets of Baltimore, Philadelphia, New-York and Boston, and to be shipped from their ports to the far distant isles of the ocean. It has been computed, that not less than twenty thousand fat cattle, per annum, cross the Scioto river, between the town of Piketon and the mouth of Darby. North and south of those points, the numbers, eastward bound, have not been included in the reckoning. Has not Mr. Renick opened a mine of wealth to the feeders and farmers of the whole western world, and at the same time secured to our eastern brethren a constant supply of a great necessary of life?

This was not the only useful and striking example of that amiable and virtuous citizen. About thirty years after he had shown his brother farmers how to get their corn to market, after he had practically demonstrated that thousands of cattle, and countless thousands of hogs, could be fattened and driven where there was the greatest demand for them, he presented to the agricultural society of this county a certificate, signed by gentlemen of the highest character for veracity, that he had produced 154½ bush. of corn on an acre of ground. I know that this achievment has been since equalled and surpassed, but I mention it here, because it was the first time, I believe, that the well attested proof of so large a yield had ever been made public, and because this wonderful product was upon the very ground on which, so long a time previous, he had fed his " forlorn hope."

The Hon. John L. Taylor states, in his communication to the Plough, the Loom and the Anvil, that on the 2d Nov., 1833, Gov. Allen Trimble, George Renick, and Gen. Duncan McArthur, with others, formed the " Ohio Company for Importing English Cattle." Now, sir, believing that none of the gentlemen engaged in that noble enterprise, will be lessened in public esteem by my doing so, I will state the facts and circumstances which called that company into being. On that day the gentlemen just mentioned had been examining a lot of Kentucky Durhams, descendants of the importation of 1817, when Mr. Renick asked his companions, why they could not form a company, and send on to England and bring out a lot of improved Durhams for themselves? He said, truly, " We know nothing of the purity of this stock; the pedigrees may or may not be made up for the occasion." The suggestion was approved, and that very day the articles of association, forming the first Ohio Importing Company, were signed. What has been the result? Ask all who have attended our valley or State fairs. Not only has there been no deterioration, but in the opinion of one of the best judges in America, Dr. Arthur Watts, " he saw nothing superior to them in all Great Britain," when he was examining their stock as agent of the third and last company, formed in 1852. In some respects, as I understand from him, the pure descendants of the first and second importations, are ahead of any thing he saw on the Empire Island. In every effort to improve our cattle, Mr. Renick has taken a leading part. There is an old addage, " Let honor be rendered to whom honor is due." It would give me unfeigned pleasure to see this rule applied, justly and fully, to him. I think it would have a wholesome, an encouraging effect, upon the rising agricultural generation. There is no society, State or National, which would not do honor to itself by passing the highest encomiums, or offering the highest rewards, for actions and services which have been of such general and unrestricted good. The experiment can never be repeated, but the effect is for all time. His peaceful and quiet home needs no music from the trumpet of fame to make it more happy; but if that class which he represents, wishes to attain and maintain the first position in society, let them acknowledge and appreciate his good example. If I shall have caused, by this communication, the young *sons of the soil* to esteem and value the character of the modest and amiable old South Branch Patriarch, GEORGE RENICK, of Ross county, Ohio, I shall be amply compensated. W. MARSHALL ANDERSON. *Chillicothe, Dec.* 9, 1852.

Agricultural Museum.

That improvement is a distinctive feature on the face of nearly every county of this state, is generally admitted; and that the position of the farmer is rapidly rising to a level with society in its best moral and social relations, is probably true. A dark shadow broods, however, over many an incredulous mind, unwilling to yield superiority, or even common fellowship, to science, over the narrow claims of practice. The progress of science is retarded, by the ignorance of those who defend the claims to merit of the merely practical man, and deride, for want of argument, the terms theory and theoretical. This practice, openly avowed by the uninformed, or tacitly admitted by interested persons, acts with force upon the multitude, which are generally more ready to follow than to lead, operating as a barrier to state as well as individual advancement.

A recent pleasant walk through the agricultural rooms, occupied by the State Society, in the old State House, at Albany, strongly impressed the above thoughts upon my mind, when a stranger present inquired of what use was the collection of grains and other seeds—of vegetables of enormous growth—of fruits and implements? Did not every practical farmer have a knowledge of all these matters?

Of what use is the science of botany to a farmer? Why need a fisherman study natural history? Is there any probability of his mistaking a shad for a black-fish? or will any man remain ignorant of the practices of a misquito or a crow? What then is the use of these collections to the practical man? It might fairly have admitted of inquiry at the same moment, of what *use* to such a man is a mind? Surely not much beyond the making of money, for the improvement of the mind or the moral faculties, makes no draft upon the time of the merely practical. The questions, however, might have been answered by pointing out in the same rooms, a mass of *phosphate of lime*, from Essex county, and its effects upon the wheat plant, and by showing, that as science has discovered its value, the farmers of Great Britain, and their friends, made large offers to purchase the entire deposit at Crown Point.

And again, the extraordinary specimens of iron, in nearly a pure state, recently received from Mr. WATSON of Essex county, were discovered by theorists who knew their practical uses.

The questions may be answered in another form, by pointing out the errors and losses arising from a want of knowledge; for instance, copper mines were opened in the west of Scotland, and at last abandoned after a large expenditure of capital, because the ores did not yield sufficient copper to pay the expenses. After a period, the waste or rubbish was analyzed, and found to contain 11 per cent of nickel, a metal used extensively in the production of German silver, worth about $2 per pound, or more. In this case the practical miners knew not the value of the substances or ores in which they worked. So many instances may be cited of our own people seeking for coal where science forbids a search. Others found iron pyrites, deeming it gold. Now a limited scientific knowledge would have saved these wasted dollars and disappointed hopes. A walk through the agricultural rooms, or the adjoining rooms, would have led either party to inquiry, and afforded the knowledge, or shown the need of it.

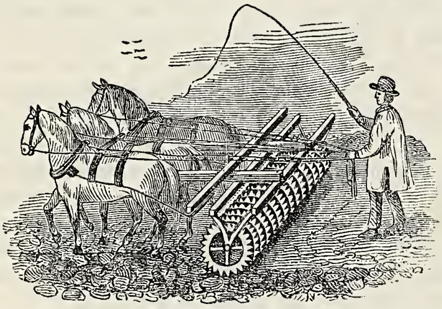
It is by frequenting such museums that the young and the old may be taught by the eye to distinguish correctly the various materials—earths, salt, and most of the important productions of nature, and many of arts : there they may be taught to love and admire nature, while they fix in the memory the works of the Creator.

In this respect the city of Albany is assuming an honorable position. Her literary and scientific institutions have been warmed into existence by liberal spirits; they have received a small portion only of public patronage, but they have obtained the good will of the people, who freely take advantage of their halls and museums, evincing a taste for such intellectual pursuits as honorable to the patrons as to those who visit them. It is suggested that some plan or system be devised for ascertaining the number of persons who annually visit the museum and rooms of the Agricultural Society, that the advance of science may be in some measure observed by the increase of attention. A like arrangement for the halls of other institutions would possess equal interest. This arrangemeut exists in Europe, and it is on record that the visitors to the British Museum in London advanced from 170,601 persons in 1846, to 1,098,863 in 1850; and in 1851, the number admitted was 2,524,754. Observer.

Crosskill's Clod Crusher.

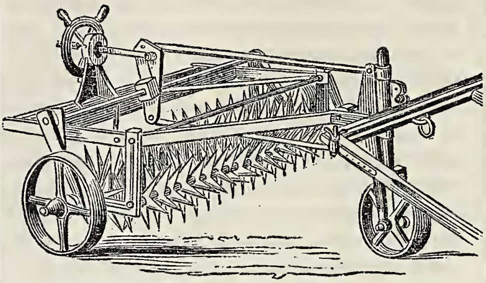
We have long been convinced, that an immense loss is sustained by not sufficiently pulverising adhesive soils. Manure cannot be intermixed with a stratum of clods; moisture is badly retained, seeds vegetate imperfectly, sowing and planting are difficult, and clean cultivation impossible. Crosskill's Clod Crusher has been thoroughly tried in England, and so great are its advantages, that thousands are now in use. We cannot better describe its efficacy, than in the words of the late report of the trial of implements, by the Royal Agricultural Society of Ireland: "This implement fully maintains its character, and perhaps few contrasts are greater than to see an array of men during a dry spring, breaking the stiff clods, one by one, with mallets, in preparation for a green crop—and this powerful crusher reducing a breadth of six feet, with three horses, after the grubber (an instrument like our hook-toothed cultivator,) has raised them to the surface."

For the information of those who may not be familliar with its construction, we may simply state, that it consists of about two dozen circular cast-iron disks or circles, placed loosely upon an axle, so as to revolve independently of each other. Their outer circumference is serrated or formed into teeth, which in revolving, while rolling over the ground, press upon and crush the clods. Every alternate disk has a larger hole for the axle, which causes it to rise and fall while turning over, and to prevent the two contiguous ones from clogging. This machine is said to assist materially in destroying the grub and wire-worm, and to be greatly superior to the roller for young crops of wheat.



Crosskill's Clod Crusher.

It can be used only when the ground is dry. *The Norwegian Harrow* is somewhat similar in its mode of action, and may be used both on moist and dry soils. It pulverizes in a very perfect manner, turning up the fine earth, instead of consolidating it. The rows of star-shaped tines play into each other and produce a complete self-cleaning action. It requires about the same amount of draught as the common two-horse plow.



Norwegian Harrow.

We believe the introduction and cheapening of both these machines, would prove of the highest benefit to most of our lands. American farmers have long been deficient in tools and machines for working their soils, and the loss has consequently been much greater, at least on large farms, than the cost of pulverizers. This is likewise true of subsoilers, cultivators, &c.

A Home in the Country.

Hundreds of good hearted men, are toiling severely in our large cities, wearing out their bodies and brains, in the hopeless endeavor to acquire what is called "a fortune," upon the interest of which they may support their families and themselves, in the decline of life. Their families are already expensive, and amidst the vicissitudes of trade and business, how rarely is this wished for object accomplished. It costs from $800 to $1200 per year, to support a family of five or six children, in genteel position, in a city, and it would require at least $20,000 of positive cash, to do this without the aid of a business income. To support the family, then, and lay by enough to form a moderate fortune, within the number of years that a man may reasonably count upon being successful in business, is evidently a herculean task, as times go. I know many men, in a good business position, with $10,000 worth of stock on hand in their stores, and a good credit, and very free bank accommodations, who cannot support their families in the manner described, for three years in succession, and find themselves $500 better off at the end of that period. They have first, a good year, and make $1500 or $2,000, and then a bad year, and lose two-thirds of former accumulations. And so it goes. They are so absorbed in business they find no time for study or relaxation, and the mind becomes fallow, and the body loses its vital spirit, and disease and misanthropy follow.

Now to such persons, I wish to suggest a means of becoming *independent* in a very few years—

that happy result which teases and puzzles the brains of so many ambitious mortals. We will say that you are in successful business, and can possibly save $500 per year, or some years at least. Do this, and get together $2,200; take $200 of this, or less, according to your age, and get an insurance upon your life for $5,000, for the benefit of your wife and children. Make it a perpetual insurance, so that your policy shall not run out, and the premium be raised; pay the first year down. Then look about you, and find a small farm, near the city where you reside, worth, say $4,000 or $5,000. Let it be on a river, or railroad, easily accessible from town, in about an hour's ride, without a horse and carriage. Pay down $2,000, and give a mortgage for the balance; let the place be varied in the character of its soil, and as pleasant and attractive as possible; let there be plenty of good water, and a little stream if possible, a small pond, and a grove of shade trees, and other natural advantages and natural beauties, if such can be found. If there are fruit trees, strawberry beds, &c., upon the place, so much the better; if not, let the cheapness of the land, and its *undeveloped* natural advantages, decide you; send your family to this place, (provided, always, your wife takes a fancy to go;) hire a gardener and farmer who understands his business, and pay him two-thirds the ordinary salary, with the addition of five per cent. on all the *cash* proceeds of the place, he can obtain by sending to market the produce of the place, in order to make him work and contrive how he can best and quickest make a fair salary. Keep horses, cows, hens, ducks, pigs; raise a great variety of vegetables; have an ice-house, if you can get ice; and now let us see where you are. Are you not *independent?*

Milk, eggs, butter, and fresh sweet vegetables, are luxuries in town—and these you will have plenty of at the first cost of raising them, for you pay your farmer no five per cent, on these. Your family can have a horse and carriage to ride with—a luxury you seldom dare to indulge in, when in town. Your house-rent is cheap, and if the farm does not *pay* in $400 per year, you still will have $400 or $500 left of your ordinary expenditures for living, to lay by or pay off the mortgage, or improve the farm. If you have no fruit on the farm, you may have plenty of it by planting trees, in three or four years; apples, pears, peaches, grapes, strawberries, raspberries, &c., enough to eat freely, and to sell to profit. Your family get fresh air, pure water, plenty of exercise, and live in a simple and unexpensive manner, free from many of the evils of a great city. You may combine with this the advantages of good schools, churches, and pleasant society; and may let your family go to town often enough to keep the city polish from wearing entirely off. As for yourself, the pleasure of visiting your place two or three times a week, or oftener if convenient; and spending the Sabbath in the country, will more than repay you for the inconvenience of even a partial separation from your family, should that be necessary. You will have little trouble about the working of your place if you give your farmer a per centage on sales, for I have tried the plan, and know how it works. Only remember this, get a good man, and one who thoroughly understands his business.

Now where are you? Are you not independent? If you die, and keep up the life insurance, (which will cost less than $100 per year) you will leave your family $5,000 in cash, and the farm, to say nothing of your business. If you put all your fruit and best improvements on one side, or one half of your farm, your heirs can sell off one half the farm, and pay the mortgage if it is not paid, and have the best half of the farm, and all the cash left. If you have no sons, and your wife is not skilled in business, that would be the better plan. Then, with a neat house and a good garden, plenty of fruit, a cow, a pig, poultry, a horse and carriage, and the income of $5,000, how comfortably the family could live, *at home*, as long as they should survive. And all this can be done for $2,000 to $2,200. There are a hundred other suggestions which rise to my mind, in connection with this subject, but I will not write them out now. They will occur to every reader.

Why, then, toiler in the city, wait till you acquire a fotune of $20,000 or $50,000, before you resolve to become independent, and make your family so? Why not look out for a home in the country, and make yourself independent, with $2,000 as soon as possible. I know of no other way that you can do it so easily and so certainly. It is a great deal better than going to California in search of gold. H.

◆

Large Crops.—At the winter meeting of the Oneida County Ag. Society, a premium of $5 was awarded to S. H. Church, of Vernon, for the best acre of wheat, yielding 45 bushels and 26 lbs. For Spring Wheat, C. W. Eells, Westmoreland, received prizes for two acres—one of Sea Wheat, 34 bushels 18 lbs. per acre—the other Siberian, 30 bushels 44 lbs. per acre. The prize for Indian Corn, 84½ bushels per acre, was awarded to John Thompson, of Augusta.

Newtown Pippins in Liverpool.—A late paper states that the best Newtown Pippins, (carefully selected of course, and handled quite as carefully as eggs,) were worth $5 per barrel in New-York, are crossing the Atlantic in large quantities, and are bringing in Liverpool, in some instances, *seventeen dollars per barrel.*

Horticultural Department.

Victoria Regia.

AMONG the most magnificent water plants in the world, is the *Victoria Regia*, a native of the sluggish streams of tropical South America, of which some conception may be formed from the sketch, given on the next page, which represents the specimen first grown in northern climates, by the Duke of Devonshire, at Chatsworth, England. Specimens which have been lately grown in this country, have, however, decidedly larger leaves than those here represented. The plant very much resembles an enormously magnified water lily.

The first plant in this country, was raised by Caleb Cope, near Philadelphia, in 1851, and bloomed the same season. It occupied an artificial pool about 30 feet in diameter, and four feet deep. When we first saw it, one of its magnificent flowers had just burst into bloom. Perhaps we may give our readers some idea of its splendor when we state that the flowers were about as large as a good-sized drumhead cabbage, and possessed all the delicacy and beautiful shading of white, pink and red, exhibited in the finest flowers of the *Camellia*. One of the largest leaves was found to be six feet four inches in diameter. It has been very successfully cultivated this year by Buist, of Philadelphia, and by Feast of Baltimore. The plant in the latter collection, is said to be remarkably vigorous, some of the leaves being so stout as to hold up a man weighing 150 pounds!

This, at the north, is one of the most difficult to cultivate of all tropical plants. It is not only necessary to give it a warm artificial climate and *warm water* to grow in, but also to keep this water *in motion*, so as to imitate the current of its native rivers. At the garden of Caleb Cope, the motion was accomplished by means of a stream of water from above, about half an inch in diameter, falling on a small tin overshot water-wheel, about two feet in diameter, whose outer circumference was furnished with paddles, which kept up a constant circulation in the pool. The expense of the house built for its special accommodation, and other necessary outlays, were about four thousand dollars, the benefit of which was received by many thousand persons, who came from far and near to witness this floral curiosity.

The last number of Hovey's Magazine, notices another new water lily, the *Nymphœa gigantea*, a true water lily, with deep purplish *blue* flowers, a foot in diameter, but with much smaller leaves than the Victoria, being about 18 to 25 inches across. It has never flowered out of Australia, its native locality, but the seeds are offered for sale at *five dollars each*.

Large Facts in Small Fruits.

[Having often visited the grounds of our correspondent, and witnessed the profuse masses of redding fruit on his strawberry beds, we have no doubt of the strict accuracy of his statements below, were it possible that any other proof were needed. They afford another corroboration of what we have often asserted, that strawberries, (except picking,) may be as cheaply raised as potatoes. It may be proper to remark that the soil, in the following instances, was one of excellent quality, and containing the seeds of very few weeds, but little cultivation was needed. Eds.]

1. During the last summer, I gathered from my garden more than fourteen bushels of strawberries, all raised at a cost of less than two shillings per bushel, all told. Watered not more than three times.

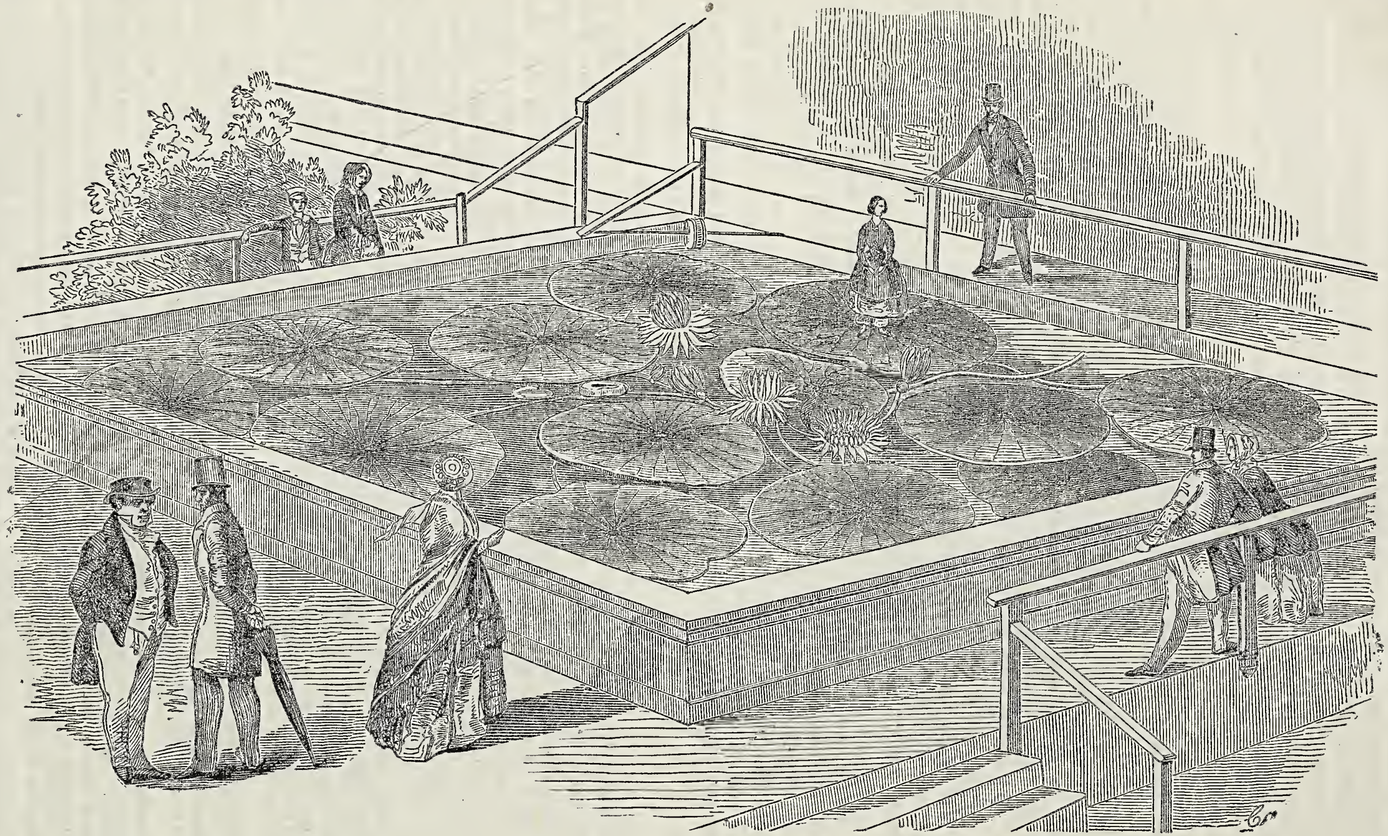
2. I transplanted one plant of Burr's New Pine Strawberry plant, on the 1st July, 1851—from which, on the 1st October, I transplanted 50 plants in a roomy bed, and from which bed I sold on the 28th September, 1852, 700 young plants at $2.00 per 100, besides 300 plants left, and the fruit gathered in June last.

3. On the 28th day of April last, I transplanted in my garden, from a journey of 300 miles, *one* plant of Longworth's Prolific Strawberry, which plant has since produced more than 150 strong plants, which are now attached to it in my garden.

4. From eight plants of the “Crescent Seedling” Strawberry plants, I sold plants sufficient to one nurseryman, to amount to more than $100, at wholesale prices.

I give the above, only as remarkable facts, the like of which may never occur again, even in my own experience, and for which I claim no particular credit, but all of which I can abundantly substantiate by witnesses entirely disinterested, in Palmyra, where they occurred; and I communicate them for lovers of large stories. R. G. Pardee. *Geneva, Dec* 13, 1852.

Securing Grafts.—We have never found any mode equal to packing grafts in fine moss, for keeping through winter. Earth or sand is the most common covering; but grafts kept in these must be carefully washed to prevent dulling the grafting knife. Besides, this covering is not so easily removed or replaced as moss.



Victoria Regia.

North Western Fruit Growers' Association.

Transactions at their Second Annual Meeting, held at Dixon, Illinois, September 29 and 30, 1852.

We are indebted to Dr. KENNICOTT, for a copy of this report, which is a neat pamphlet of 40 pages, and which, from the amount of information it contains relative to the fruits of that region of country, and its methodical arrangement and accuracy, does our western friends much credit.

The body of this report is occupied with the discussions on fruits, and perhaps we cannot render a more acceptable service to our readers, than to give a condensed statement of their results as applicable to that region.

Carolina Red June—Regarded by some members as distinct from Blush June; the former striped, the latter with a simple blush. Pronounced the best early apple, hardy, beautiful and productive when young.

Sweet June—"Very good," productive, transient, best when fresh from the tree.

Early Pennock—"Good," or second rate; bears profusely when young; valuable for market. One of the members called attention to the rather singular fact, that the Association recommended this apple last year, and placed it at the same time on the list of rejected fruits, under the name of *Shakers' Yellow*, which is found to be synonymous.

Hocking—Good, very productive, August, resembles *Townsend*; a second rate sort, but thought to be different—also differs from Rambour Franc, which it much resembles.

Keswick Codlin—Good for limited culture, for culinary purposes.

Early Harvest—Quality fine; poor bearer on young trees.

Sweet Bough—Not reliable for productiveness.

American Summer Pearmain—First rate, good bearer, very slow grower.

Rambo—"Best," very productive, profitable.

Snow (Fameuse)—"Very good," very productive, recommended for general cultivation at the North.

Maiden's Blush—For quality not highly spoken of; recommended for general cultivation for culinary purposes.

Porter and Gravenstein were passed, as not sufficiently known to decide upon.

Autumn Strawberry—Highly recommended, productive and fine.

Monarch—A sweet apple from Ohio; tree a rapid grower, moderate bearer; ripens at the end of summer; of fine quality.

Fall Pippin—A few cases were mentioned of its bearing well, but mostly unproductive.

Yellow Bellflower—Mostly, but not always, a good bearer; of fine quality.

Domine—Quite productive; valuable.

Rawles' Janet—"Very good," not "best;" profitable in most localities.

Winesap—Constant in productiveness, and of fine quality.

Fallawater (or Tulpehocken)—Good for limited cultivation.

White Winter Pearmain—Very highly commended; "best;" worthy of general cultivation.

Bellmont—Recommended for limited cultivation.

Vandevere—Needs good culture, and is best on sandy soil.

Tallman Sweet—Recommended for general cultivation, and for stock.

Rhode Island Greening—Several members said that root-grafted trees were uniformly unproductive, even when 15 or 16 years old. A few had found it to bear well budded or stock-grafted.

Roxbury Russet—Nearly the same opinion was expressed, regarding its productiveness, as with the Rhode Island Greening. A few members had found it profitable.

Baldwin—Many instances of its unproductiveness were stated, especially when root-grafted; a better bearer when budded; bears well in Northern Indiana. It is a singular fact, that from Eastern Massachusetts through New-York and Michigan, the Baldwin is valuble and productive; but no sooner do we cross Lake Michigan, than its value ceases. In Ohio and Illinois, it is of little comparative value.

Swaar—Generally productive; quality of the highest character; recommended for general culture when worked standard height.

Pryor's Red—A fine apple, but unproductive. Old trees have borne well.

An ambiguity occurs in this report, in the use of a word, that in all its different meanings would rather puzzle the uninitiated,—the word "passed,"—it is sometimes used to express the *decision* of the Association; sometimes to express the absence of any decision; and in a number of instances, as for example in the case of *Pryor's Red, Baldwin, Willow Twig*, &c., it would be very hard for most readers to say what it does mean. We are aware it is in common use in fruit conventions, but the evil of an ambiguous expression is no better for being frequent, and we should like to see a substitute having a distinct meaning.

The Association meets next year at Chicago, on the 4th of 10mo., (Oct.) at 10 A. M., and we have no doubt, from the exellent beginning already made, that much will be achieved by our western enterprising friends in the pomology of that portion of the Union.

Fruits.

A Western Fruit Book.—A work on Fruits, and more especially on western fruits, by F. R. ELLIOTT, a person eminently qualified for the task, is announced to appear in the spring. It is the result of years of labor in the examination and comparison of varieties, and no doubt will prove of great value.

Dwarf Pears—may be trained as half standards, that is, with clear stems about two feet high, for market culture, on all soils but those liable to become very soft by excess of moisture. On such soils they are apt to bend over by wind, or by the weight of heavy crops, in consequence of the shortness of the quince roots on which they grow. Where this difficulty exists, it is better to allow the branches to cover the whole stem, forming full pyramids.

Market Peach Orchards.—Trees may be placed within 12 feet of each other, if they are kept properly shortened-in. It is perfectly useless to allow the long, naked arms to extend out from the trunk, so as to require more room than this. The commonly recommended practice, of clipping off a part of each yearling shoot, is too slow a process for a large orchard, and when alone relied on, commonly proves quite insufficient, being imperfectly or only occasionally performed. To keep the heads sufficiently compact, it will be found best to make a wholesale work of it, and remove the ends of the branches of several years' growth

—but taking care always to cut off at a side branch, so as not to make a dead stump.

Buying and selling Fruit Trees.—Purchasers *sometimes* get good trees from irresponsible itinerant dealers, who purchase *good-looking* trees where they can get them cheapest, the quality of the fruit they shall bear, although highly recommended, being rather uncertain for some years to come. The *Agricultor* gives a sample of the mode in which this kind of business is sometimes conducted. A lot of trees was purchased by a speculator, who bought at the same time a quantity of fruit, for the purpose of showing the quality, certificates being in readiness to convince those who never read agricultural papers, that the fruit grew on those identical trees!

◆

The Kitchen Garden.

We think we cannot do better than to commence this department of gardening, by acceding to the request of several of our correspondents, who ask us for some hints on the mode of laying out a Kitchen Garden.

The first considerations in a kitchen garden, are its soil, situation, and aspect. Soil, too frequently, cannot be selected, but if it can, an open loam free from clay on the one hand, and too much sand on the other, is most desirable; so situated that water passes from it readily. If deficient in that point it must be well drained. A level surface, or very moderate slope towards the south, or as near that as possible, is the best. A good fence should surround it, and on the north side it will be better if it can be sheltered by trees, provided they are not near enough to overhang or shade the garden ground. Trench the ground at least two spades deep all over. Most people, in trenching, throw up the subsoil of the second trench on the top of the first, and provided the subsoil is open in textnre, there is not much objection to this; but if the subsoil is stiff, it is decidedly a bad plan. In the latter case open two trenches, side by side, so as to have room to work, then dig up the subsoil and leave it at the bottom of the trench and throw the top spit of the third trench on the subsoil of the first; then there will always be two trenches open to work in through the piece of ground. This trenching is indispensable to good gardening. All the parts of the garden that have no winter crop standing in them, should, before winter sets in, be thrown up in ridges and be left so until spring. This, by allowing free access of the frost and atmosphere to the ground, improves it in many ways.

Upon the breaking up of winter, the ridges should be levelled down, and the ground laid out in beds for receiving the principal crops of the year. Before proceding to do this, the gardener will do well to lay down upon paper a plan of his ground; determine upon how much he will devote to each crop, and what crops will be cleared off in time to take another in autumn. A plan on paper will save an infinity of time and trouble all through the year, and if well arranged as to the crops to succeed each other, will enable the gardener to get a much larger quantity from his ground. The mode of cropping a garden to advantage will be found as the proper season approaches, in our pages.

In laying out the kitchen garden, a bed from six to ten feet wide, according to the size of the ground,) should be left next the fence all round. Then a walk next it all round wide enough for all purposes of ready access to all parts of the garden, for carrying in manure, &c. If the garden is large, another walk of the same width should be made up the middle. These walks should be made solid by throwing all stones and hard rubbish in them, with gravel on the top, and well rolled down. All other walks may be merely temporary ones to divide the beds of vegetables, if it is wished to economise the ground; or permanent narrow walks may be made to divide the garden into compartments. The subject of manures will, from its importance, require a separate notice hereafter. But as connected indirectly with it, it should constantly be remembered that the same spot of ground should never be cropped twice successively with the same crop. A root crop, such as turneps or parsnips, should be succeeded by one of an opposite kind, such as beans or peas. Vegetable physiology shows that this gives each crop the greatest share of nourishment.

No standard trees of any kind are admissible in a kitchen garden, on account of their shading the ground; but dwarf fruit trees, as gooseberries, currants, raspberries, and if desired, dwarf pear trees, may be grown along the principal walks, which is a good place for them. They should be put about three feet from the edge, and it is best to plant these on the center compartments only, and not on the beds next the fence, some of which are wanted for early crops. B. M.

◆

Hot Beds.

We can state briefly, in answer to the inquiry of Heman C. Orcutt, of Taftsville, Vt., for the cheapest and best mode, and the time, of making hot-beds for forwarding plants for the garden, that the mode must vary somewhat with the proposed objects. If it is intended to forward plants quite early, so as to have them far in advance of ordinary crops, a different mode must be adopted from merely giving them a start of two or three weeks. In the former case, large masses of fermenting manure will be needed in order to retain the heat a long time, say at least three feet and a half high, and extending a foot on each side beyond the frame, or else placed in a walled pit; in the latter, a bed of manure two and a half feet thick will answer. The manure should be the strongest and best fresh stable dung, and should be well shaken up a few days before using. It should be laid in even layers, and beaten down at each course, and unless in a pit, the bed must be made much the heaviest or most solid outside, or that part will settle too much, and leave a swelling in the middle. For the locality of our correspondent, hot beds need not be made for ordinary purposes, much before the first of April. When finished, the frame and sash must be put on, to retain the heat. The sash is best if made in separate pieces, keyed together, so as to be easily taken apart when not in use. If the bed is five feet wide, the back, (from the sun) should be about 10 inches higher than the front. In a day or two after it is made, its upper surface, within the frame, is to be covered with several inches of the best garden mould. This will be heated enough in two or three days to sow the seeds. During warm days, or if there is sunshine, air must be admitted. Sometimes a few minutes neglect, when the heat is steaming up from beneath, and the sun's rays pouring down from above, is sufficient to scorch and destroy the plants. On cold frosty nights, a mat or blanket should be spread over the glass.

Cabbages, and other plants which are transplanted without difficulty, may be sown at once in the mould of the bed. But cucumbers, melons, &c., should always be planted in small blocks of inverted turf, which admits of their removal to open ground without tearing the roots, or checking their growth.

Visits to Green-Houses.

Kenwood.—We had the pleasure of visiting Mr. Joel Rathbone's grounds, at Kenwood, during the past month; and we were gratified to find that the horticultural beauties of this finely situated country seat, are increasing rapidly in their attraction. The plant-house is well stocked, and the plants are clean. The collection of cacti, although limited in extent, numbers amongst its varieties many of the most esteemed sorts, and are evidently kept with care. There appeared to be a good collection of the new scarlet geraniums, in which we remarked Cerise Unique, Princess Alice, and many others. The specimen plants were few, but the gardener, Mr. Gray, has not, we find, had charge of the establishment long enough to carry out the improvements which he contemplated in that way; but he has some good young plants of the Australian hard-wooded species in course of training, which promise well. A cold vinery adjoins the plant-house, in which the canes look strong, and are well ripened; and we were told by Mr. G, that he intends this year to test the disputed system of coiled pot-growing; for which purpose he showed us some strong ripe canes laid aside.

Horticultural News.

A Pompone, or Dwarf Chrysanthemum was exhibited at the London Hort. Societie's Exhibition, in November last, called "Le Nain Be-Be," which has a faint smell like violets. We may hope, therefore, that this interesting winter family will soon number a fine scent amongst its attractions.

For keeping up a succession of green peas late in the fall, "Shilling's Grotto" Pea has recently proved one of the best kinds to grow.

A new turnep, raised by Mr. Chivas, of Chester, England, has been tested the past season in the Garden of the London Horticultural Society, and is reported by the Society to be "everything that the best kind of turneps should be."

A Fuchsia has been brought out by Messrs. Lucombe & Prince, of Exeter, called F. Princeps, in the way of Corallina, which has induced Dr. Lindley to mention it in a leading article in the Gardeners' Chronicle, as a flower "the beauty of which we can scarcely find adequate language to describe." This from the Dr., whose predilections are not much in that way, is high praise, and leads us to wish to see it on this side of the Atlantic.

Dilcock's Pride, a new variety of Broccoli, is said by Mr. R. Dempsey, Honorary Secretary to the Horticultural Society of the city of York, England, to have gained the three premiums of that Society for Broccoli, both last year and the present. It may therefore be considered one of the best now grown.

A new pear has been this year grown in the Gardens of the London Horticultural Society, called "Beadwell's Seedling;" it originated with J. Beadwell, Esq., Tottenham, near London. The description given is this: "The fruit is nearly middle sized and turbinate; the skin pale yellowish green on the shaded side, and red next the sun. The flesh is melting, exceedingly juicy and rich. Its period of ripening is from the middle of September to the middle of October. It does not keep long. An abundant bearer, and caanot fail to become a favorite." B. M.

Cultivating Trees Needful.—The Granite Farmer very justly says, "We would advise any one, whose mind is not fully made up to cultivate his fruit trees as regularly and systematically as any other crop, not to commence a new plantation—only vexation will come of it."

The Grazier.

Feeding Troughs for Sheep.

ONE of the best feeding troughs for sheep, is shown in the annexed fig. It combines more advantages than any other we have met with, and proves, on trial, to answer an excellent purpose, both for feeding grain and chopped roots, and as a rack for hay. Troughs similar to this have been made for many years, with the exception of the *double trough* below, an improvement described by **Geo. Geddes.**

Fig. 1.

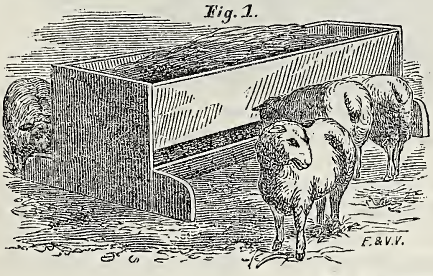


Fig 2

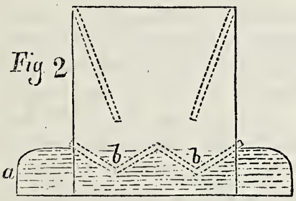


Fig. 2 exhibits a section across one of the ends, and shows the structure without any description. It may be well enough, however, to say that the feet (*a a*) should be of thick, durable plank, and should be notched, and the lower inch-board troughs (*b b*) nailed in, before the end-boards and upper trough are applied. If the trough is 12 feet long, which is a convenient length, a third plank foot should be placed across the middle. A single board, as a roof, will, if needed, preserve the fodder from the weather or rain. The space between the upper and lower troughs should be just sufficient for the sheep to abstract the feed, and which will wholly prevent the chaff and seeds from entering the wool.

By selecting plank and boards the right width, so as to require no slitting, a farmer who is accustomed to the use of tools will make several of these in a day, and a large flock may be soon supplied at a small expense.

◆

Winter Food for Horses.—At one of the discussions of the Highland Agricultural Society, Black, of Dalkeith, stated that his mode of feeding his horses in winter, was to give each, daily, 15 pounds of hay, 12 pounds of oats, and 28 pounds of boiled turneps. He considered the boiled turneps a most palatable, nutritious, and gratifying food for cart-horses, and equally so for coach and saddle horses.

◆

Merino Sheep.

SPANISH, FRENCH, AMERICAN AND MAUCHAMP.

Some farmers in this neighborhood, as well as in other wool-growing districts, are prejudiced against the French Merino sheep. Still we are half inclined to believe that they would, in a small way, be ready to test them, could they do so without making a hole in their "squirell-skins."

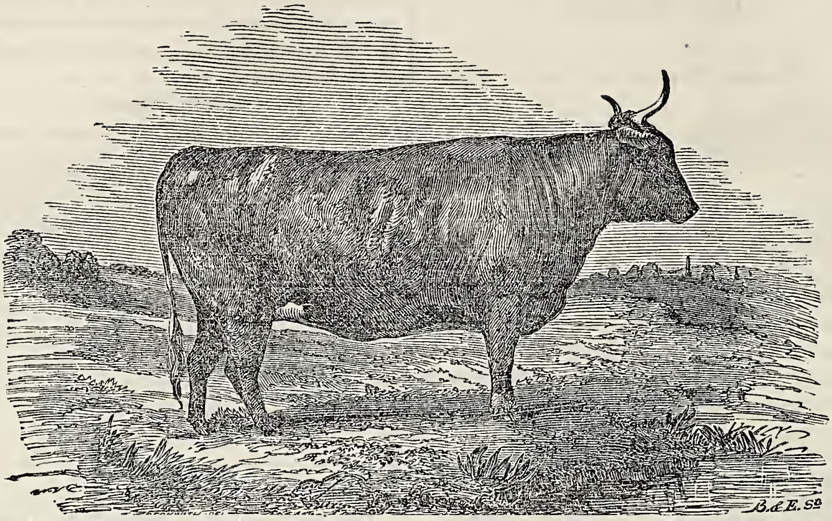
They claim no improvement upon the best importations of the Spanish, during the first half of the present century; and it is quite doubtful whether there can be found, at this time, among the twenty-five millions of sheep in the United States, as many good, pure-blood Merinos as were first introduced here from Spain, of equal value.

That there are pure descendants of the best Spanish Merinos now in France, in the hands of three or four flock-masters, who, by long persevering efforts, have improved them in size, symmetry and mutton qualities. as well as in an increased quantity of wool, without deteriorating the quality, cannot be denied.

To renew the blood of the American Merinos, by mingling it with this improved Spanish Merino sheep, is only wisely adding an *improvement* to an *un*improvement. Then to assert that this renewal of blood from the same kin of a superior animal, will result in the manifest injury of our flocks, is absurd in the extreme. And none but those who are ignorant of the true principles of breeding, and those whose present interests control their better judgment, will ever advance the assertion.

That this renewal of blood will ameliorate our flocks, and elevate them to a higher standard in a short space of time, which the long continued patience and skill of the Spanish and French amateurs have labored for ages to acquire, many of the best breeders in this country are now beginning to appreciate.

The Mauchamp sheep, is a particular breed that J. L. Graux, of the farm of Mauchamp, in France, has for some time sought to establish. The wool is a greater length than the common Merino—glossy, and very wavy; considered more valuable for its fine combing qualities, imparting more strength than other wools in this class. The fleece is not as dense, and the quantity of wool is less than on ordinary Merinos of France. But the price it bears in Paris, is 20 per cent. above the best Merino wool, because the supply is limited. But, according to the latest information that I could obtain, he had not a distinct race, *permanently*



Spayed cow, five years old, three-fourths Devon, the property of George Shaeffer, Wheatland, Monroe county, N. Y,—for which a premium was awarded at the Show of the N. Y. State Ag. Society, in 1851.

fixed. That frequently a lamb of the peculiar charasteristics of the new breed would appear, but with a degeneracy towards the original race of Merinos.

In 1851, Mr. Graux exposed four races of this breed before the Society of Agriculture and Arts, at Versailles, and at the Great Exhibition of 1852, at Poissy, several of his Mauchamps were exhibited. I also saw several races of this breed upon the "Model Farm" at Grignon, where they raise stock more particularly for the meat; half-breeds by the lot, command from 40 to 50 francs each.

I enclose to you a sample of the Mauchamp wool. Respectfully, Solomon W. Jewett. *Middlebury, Vt., Dec.* 1852.

◆

Error Corrected.

L. Tucker, Esq.—We noticed in the Cultivator of October last, a handsome print of the full blood Devon Bull Champion, that took the first premium at the State Fair at Utica, last September. And were sorry to notice underneath a gross error in giving his age and pedigree, which requires correction. We raised Champion, and sold him to Stephen Atwood, of Watertown, in this county, who parted with him one year since to L. H. Colby, of Scipioville, who exhibited him at the fair, where he took the first premium; we have also noticed in the Cultivator of November, a statement from Wm. L. Cowles, of Farmington, Ct., who says that "some of his stock is descended from the Bull Champion," to whom the first premium was awarded last month; and that he was bred by Mr. Allen, of Black Rock; and that he purchased him when three years old, "and used him two years in his herd," which article is copied into the Plowman of November 13th. Mr. Cowles is entirely in an error, as he never owned Champion. Champion was dropped in March, 1847, instead of June, 1844, making him only five years old past, instead of eight. His sire was full blood Bull Bloomfield, his dam Beauty. Bloomfield took the first premium at the State Fair at Albany, in 1850, and the first premium at the State Fair in New Hampshire, in 1851. Beauty took the first premium at the Fair of the New-York Institute in 1849, and also at two other Fairs, in every instance where she has been exhibited for a premium. Bloomfield was sired by Mr. Patterson's Eclipse, and out of one of his full blooded cows; Beauty, by Exchange, and out of a daughter of Old Fancy, which was sired by our full blooded Bull Holkham. Holkham was raised by Wm. Patterson, and was sired by a bull, and out of cow, sent as a present by Mr. Coke, late Earl of Leceister, to Messrs. Patterson & Caton, of Baltimore, in 1817, and was purchased by us in 1819; from which stock, we will venture to say, a more numerous or valuable breed of pure Devons, has never been raised in America, if in any country.

A good likeness of Holkham, may be found in the 3d Vol. of Memoirs of the Board of Agriculture of the State of New-York, published in 1826, page 512. S. & L. Hurlbut. *Winchester Centre, Ct., Nov.* 18, 1852.

P. S. Will the Plowman, and other papers that may have published the erroneous pedigree of Champion, and also the statement of Mr. Cowles, give the above an insertion.

Agricultural Societies.

New-York State.—The annual meeting of this Society is to be held in this city on Wednesday, the 9th of February. On the 8th, 9th and 10th, there will be an exhibition of Fat Cattle, Sheep, Poultry, Dressed Meats, Grain, Seeds, Dairy Products, &c., at Woolford's "Bull's Head," 157 Washington-street, which promises to be one of great interest.

At the meeting of the Executive Committee for January, a very interesting report was read by Mr. Kelly, on the introduction of foreign grasses, and showing the necessity for a greater variety of grasses for our meadow and pasture lands. The subject is one of vast importance, and the society will make arrangements for the importation of such varieties as were recommended by the committee, to distribute among such farmers as will engage to give them a fair trial, and report the results.

A circular from the Oswego Co. Ag. Society, inviting a State Agricultural Convention, to be held during the present winter, to urge upon the legislature the claims of the farmers for a State Agricultural School, was read. The circular requested the board to fix the time and place for the convention. But as only four or five societies had sent in their concurrence, it was thought best to defer action upon it until after the next meeting.

The Seneca County Society, will hold a winter exhibition at Waterloo, on the 3d of Feb., at which a liberal list of prizes will be awarded for fat cattle and sheep, grain, seeds, roots, &c. We are glad to see these winter exhibitions increasing; and we trust it will not be long before all our County Societies will hold them.

Otsego County.—At the annual meeting of the Otsego Co. Ag. Society, held at the Empire House in Cooperstown, on the 23d of December, 1852, the following officers for the ensuing year, were elected:

President, Homer Colman; Vice Presidents, Alex. H. Clark, L. Proctor, Z. Martin.

Executive Committee—Wm. Davison, J. W. Ball, Philip Potter, Thomas Higby, David Bundy, R. H. Van Rensselaer, A. Barnum, J. A. Cheney, J. Chamberlin, S. Baker, Richard Franchot, Wm. Frater, S. G. Cone, George Clarke, R. Day, Charles McLean, J. Rathbone, J. Walker.

The next Annual Fair, pursuant to former resolution, will be held at Cooperstown.

Monroe County.—At the recent winter meeting, F. P. Root, of Sweden, was elected President; H. C. White, of Rochester, Rec. Secretary; E. S. Hayward, of Brighton, Treasurer.

Cortland County.—The annual meeting of this society convened at the Eagle Tavern in this village, on Thursday last. The declaration of premiums on field crops and fat hogs, was postponed until spring. The following officers were chosen for the ensuing year:

Paris Barber, President; Moses Kinney, J. W. Rood, Lyman Hubbard, Manly Hobart, Vice-Presidents. Morgan L. Webb, Treasurer; Erasmus Bowen, Secretary; Amos Hobart, Corresponding Secretary; Israel Bois, Geo. J. J. Barber, Hiram Hopkins, Anthony Freer, Joshua Ballard, 2d, Amos Rice, Noah Hitchcock, Jr., Hamilton Putnam, Peter Walrod, F. H. Hibbard, Hammil Thompson, Executive Committee; Oliver Glover, Ira Bowen, and Wm. L. Sherman, Marsharls.

We understand a proposition was brought forward providing for the purchase of a suitable piece of ground, and the erection of suitable buildings thereon, for the purpose of holding the annual fairs. The proposition appears to us to be one possessing great merit, both as a matter of economy and in avoiding the trouble which the society has to undergo from year to year, under the present arrangements, and we shall be much surprised if it be rejected. We shall take occasion to speak of the matter further hereafter.—*Cortland Dem.*

Wisconsin State.—Our Society was organized March 12th, 1851, and held its first fair in October of the same year, at Janesville. This fair was eminently successful, far surpassing the highest anticipations of the most sanguine. No aid was received from the State, or any other source, aside from its own members. The second fair was held at the city of Milwaukie, on the 6th, 7th, 8th and 9th days of October, 1852. High as had been the expectations raised by the first fair, they were more than realized by this display. Over fifteen hundred entries were made, and of the animals and articles shown, nearly all were of *positive* merit. Especially was this true of the blooded stock, which was of a character to do credit to the best eastern herds. The show of manufactured articles (domestic) was such as to surprise and delight all, while the exhibition of dairy products gave ample assurance of the resources of Wisconsin.

The officers for this year are as follows:—

Hon. Henry M. Billings, President; Martin Webster, Orrin Dinsmore and N. B. Clapp, Vice Presidents; Albert C. Ingham, Madison, Cor. Secretary, and also Rec. Secretary; Simeon Mills, Treasurer; who, with five additional members of the society, constitute its Executive Committee.

Hon. E. B. Dean, Warren Chase, H. B. Hawley, S. S. Daggett and J. D. Merritt, Esqs., are those additional members.

The society has received from the State five hundred dollars during this year. The annual meeting is held on the third Wednesday of January, in each year. The address of the society, is Madison, Wisconsin. A. C. I.

◆

Agricultural Papers.—A large weekly paper has recently been started in New-York, by Messrs. A. B. Allen & Co., entitled *The New-York Agricultor.* It contains a variety of valuable and interesting matter, and is conducted with spirit and ability—$2 a year.

"*The Farm and Garden*" is a monthly issued from the same office, and made up from "The Agricultor"—$1 a year. Eight copies $5.

The Western Horticultural Review, edited by Dr. J. A. Warder, Cincinnati, Ohio, is earning a reputation for ability, and exerting no inconsiderable influence in the culture of rural taste. Dr. Warder is a spirited writer, and makes his mark on whatever he touches. Monthly, at $3 a year.

Journal of Agriculture. Wm. S. King, Editor. Published monthly at Boston, Mass., at fifty cents a year. This publication, having blended the waning light of the *Green Mountain Culturist* with its own ascendant star, will shine with increased brilliance. It numbers among its contributors some of the best agricultural writers of the day.

Prairie Farmer. Published by John S. Wright and Luther Haven, Chicago, Ill., at $1 a year. The December number announces that its general editorial management will hereafter be in the hands of J. Ambrose Wight, its former acting editor, and that the horticultural department will be in charge of Dr. J. A. Kennicott, a writer well and favorably known to the horticultural world. With such an impulse the Prairie Farmer will continue to be, as it has been, one of the best journals of the day.

New-England Farmer. Simon Brown, Editor; Fred. Holbrook and Henry F. French, Associate Eds. Published monthly, at Boston, Mass., by Raynolds & Nourse, at $1 a year in advance. This journal ranks high in the estimation of the agricultural public, and is sustained by able assistants and a corps of practical correspondents.

Moore's Rural New-Yorker presents a new vignette at its head, with the new year. It is a weekly of considerable merit and of unobjectionable character—$2 a year—published by D. D. T. Moore, Rochester, N. Y.

Farmer's Companion and Horticultural Gazette, is the title of a new monthly, published at Detroit, Mich., at fifty cents a year. Charles Fox and Chas. Betts, Editors; Linus Cone, Corresponding Editor; J. C. Holmes, Horticultural Editor. The first number is quite creditable, and the work will no doubt be an efficient means of improving the agriculture of the growing West.

The Ohio Farmer, published by Thomas Brown, Cleveland, has enlarged its size and improved its typographical appearance. It contains a large amount of agricultural and general reading.

How to Raise Farmers.

How frequently do we hear those who have passed their lives upon farms, until they are approaching old age, regretting that none of their sons are willing to adopt their father's calling for a profession. And how often is it that of several sons who have been born and reared upon a farm, not one even, will remain contented upon the old homestead, to cheer, solace and comfort his parents in their old age, and to perfect the improvements they have commenced.

There must be some potent and general causes for this, or the most healthful, independent, and certainly remunerative calling, would not be so generally deserted by those who are bred to it, for those more harrassing, uncertain, and far less independent; and it may not be unprofitable to consider a few of these causes, and see if, with all the skill and judgment that has been displayed in improving and perfecting the products of the farm, there may not have been errors committed in regard to the farmer's *sons;* which errors, and not any inherent repulsiveness of the calling, or any inherent perverseness among the sons of our rural population, have led to these results.

All young persons naturally possess some degree of pride of person, and a desire to improve their condition in life. Love of approbation seems the natural birthright of all, and whatever may be the calling or social position young people are placed in, there are but very few of this class who do not feel a desire to attain a still higher position, and to feel that he has achieved for himself a name and position that will command the admiration of his associates and friends. This feeling is manifested in a vast variety of ways, and in accordance with the amount of natural intellect the person has been blessed with, and the kind of education the person has received. Among certain classes, it finds voice in the strife to excel in feats of strength and agility, or in the capacity for physical endurance, in the performance of wonderful day's-works, among farmers, or even in showing a capability to resist the effects of great errors in eating and drinking. Another class, whose brains are less developed, even than those previously mentioned, and whose muscles have not been strengthened by physical labor, manifest the same feeling by the care with which they cultivate the growth of hair upon their heads and faces, and the attention they pay to dress, and the conventional follies of *polite* society. As they have nothing within themselves, worthy of note, they endeavor to gratify this love of approbation and distinction by attention to their externals.

Others seem to care little for their own persons, but wish to become notorious from the beauty of their equipage, and their homes, and the speed of the team which draws them about. Again, there are those who wish to rise to political preferment, to have their influence felt by government, and as far as in them lies, to sway the destinies of the people and nations.

Above all these, are those who wish to gain fame from having advanced the arts and sciences, or to achieve a name in the literary world, or to have their praises sounded as public benefactors, for the improvements they have made in the condition of humanity in the present or future. The *true* man will not be governed by purely *selfish* motives alone, but while he strives to advance his own interests, and secure personal advancement, he will also exert himself for the good of those around him. There are but few who are naturally wholly selfish, even among the extremes of humanity. The extreme poor have no time or means to devote to the welfare of others, and the extremely wealthy have *acquired*, not inherited, their disregard for all but themselves or their families. It is *natural* for even the confirmed mammon-worshiper to feel sympathy for their fellows, and to delight in *social* pleasures.

Let us see in what regard the sons of farmers, as a class, enjoy opportunities for the indulgence of these *natural* desires. Infants and children are fond of notice and of sympathy; but many farmers, even those who have wealth at command, have so many other things to care for,—so much stock and so many fields to look to, and their property cares consume so much of their time, that they seldom notice their children, except to reprimand them for indulging their natural love for childish sports; and the wife and mother has so many household cares, that *she* is obliged to stifle the yearnings of a mother's heart, and leave her tender offspring to the attentions of a hireling, or an older child. Thus, even in early childhood, can be observed a striking contrast between the condition of these children, and those of a different calling.

Mechanics, traders, and professional men, congregate in villages and cities, so that the son or daughter of either is not obliged to pass *months* without the society of those of their own age, and seeing none but members of the family, or some adults whom business leads to visit the farm.

With this loneliness and ennui heavy upon them, can it be a matter of wonder that these lads should loathe the calling which they consider as the origin of their sufferings? As soon as the boy is able to work in the field, he is frequently armed with a worn-out and heavy implement, and placed beside experienced and strong laborers, when, instead of being taught the easiest method of performing his labor, he is laughed at for his awkwardness, and taunted with his inefficiency. In too many instances he is kept at work upon the farm for long months, and from early dawn until late at night, without recreation or rest, except to attend church, where the children of other occupations are better dressed and wear a happier and more intelligent look than himself; and if he has any aspirations for a higher mode of existence than that of a mere laborer, he must again and again resolve to adopt some other calling for himself and *his* boys, as the only method to attain his desires.

As he advances in years, he is still kept upon the farm during nine months in the year, while boys, whose parents possess no more wealth than his, are sent to a school where their minds and their manners are improved; and where *he* is considered but a mere drudge of a farmer's boy, they are looked upon as *young and promising men*, who will make their mark in the world.

During the winter he has the cattle to look after, and a thousand *chores* to do, so that if he attends the district school he is frequently belated, and receives a chiding from the teacher for his involuntary tardiness; and during school hours, his mind is so much occupied by his home duties, that he can make but little progress in his studies, and he soon begins to think he *is a dunce*, as he is called by his mates.

As he advances toward manhood, his labor is too valuable to be dispensed with, and he is still confined to the (to him) disagreeable and dull routine of the farm, in which he takes but little interest, for he never intends to be a farmer; and without any proper preparation for entering upon any other business, when he has attained his majority, he leaves the farm in disgust, and has got to learn the occupation he is to depend upon for a livelihood.

Can we wonder, with this experience, which is a true transcript of that of a large number of those who have been reared upon a farm, that the homestead should be deserted, and the old farmers be obliged to pass the evening of their lives in sad and solitary loneliness; while their boys, for the want of a proper preliminary education should struggle through life as *second* or *third* rate traders, lawyers, or physicians? for seldom do they, after leaving their homes, learn any mechanical trade. There are some, it is true, who leave the field for the bench of the artizan, but the most of them *purchase* their time of their fathers, and are glad even thus to escape from a life that has become so distasteful to them.

There cannot be any absolute necessity for the repulsiveness that most young men feel toward farm labor, and a farmer's life. Many who have been bred to other callings, and have passed years in the busy haunts of men, are looking forward with pleasurable anticipations to the time when they can leave their present harrassing and *dependent* occupations, (dependent either upon an employer or the public,) to the independent and healthful life of a tiller of the soil.

But the inquiry is, "*How to raise farmers*," and I will endeavor to present a few hints derived from experience as well as observation, that may not be unworthy attention.

The child should be able to discern that the father and mother enjoy life on the farm, in some methods other than the pleasure of having performed a large amount of labor, or accumulated property; for he has not yet learned thus to limit his sources of enjoyment. *Amusements* of some kind should be systematically procured for *all* young persons, whether on the farm or in villages. The spelling-book taught that,

> "All work and no play, makes Jack a dull boy;"

and many a boy would gladly quote the line, even if for a reply he should have its counterpart, if he did *fear* more than *love* his parents.

No one, at so small an expenditure of money, can afford to their family such pleasant seasons of recreations, as can the farmer; even a ride to the neighboring village with one, or with both parents, would by most children be deemed equal to a holiday. The farmer has a team, and *he* goes on business, so there is no loss of time to him. But it is no uncommon thing to meet young persons nearly arrived to manhood, who have never been a dozen miles from the home farm, and every thing beyond these limits, wears a hue of mystery, which they are determined to remove as soon as they are freed from their present galling confinement. With a mere trifle of expense, he could gratify this laudable curiosity in his children, or he could entertain the children of his friends who reside in the village or city, and they even might almost envy *his* sons their priviliges, while they are freely partaking of the fruit that otherwise would rot upon the ground.

Invite them to your homes, and let your lads show the large growth of plants and fruits, the docile and happy cattle and sheep, to those who will admire with wonder and delight, and resolve *themselves*, to become tillers of the soil.

As regards clothing, every person should, *while at work*, dress in a manner befitting his employment; but there can be no reason why the children of farmers should be dressed in a manner that *must* deeply wound their pride of appearance, at all times, and on all occasions. As great would be the propriety of making the son of a shoemaker wear his leather apron to church, as there is in making farmer's chilildren wear the clothing that is frequently provided them. "But farmer's children should not be proud." They are and *will be* proud until all care for everything, except to accumulate wealth, is crushed out of them, and they will despise the calling that so frequently wounds their pride.

None should be favored with better opportunities for an *education*, than those who are to take the lead in Agriculture; for there are few callings where the mind can be exercised to better purpose, than in the improvement of the soil and its products. To understand how to treat the various soils, and how to furnish the proper nutriment for the great variety of plants grown upon the farm, at the least expense, so that the soils may not become deteriorated—to know how to manage the animals in sickness and in health—to understand their physiological laws, so as to be able constantly to improve them, making the offspring of more value than the parents; and that without a pecuniary loss, requires a greater familiarity with the sciences, and greater activity of the mind, than is needed to manage a steam-ship, or command armies; yet by many it is supposed farmers and farmers' sons, need but to possess minds willing, and bodies strong to labor.

Order, regularity, and neatness, should be observed about the buildings and the fields, both because it is more profitable thus, and because then, the boys would be *proud* of their home and their calling, and be pleased to do all they could to improve and embellish their homes.

On all farms, there should be a room or shop, supplied with tools for repairing such implements as need repair, and for making such as can be best made there. Here, every implement in use on the farm, should have its place, and each should be put in its place. Here, also, the boys might perform the philosophical and chemical experiments they have learned at school and from books—here they can analyze their soils, and try new experiments. This room should be the *study* and workshop of the farm, and here the young, and perhaps the older farmers, would be glad to assemble in stormy weather, and during the long winter evenings, to converse upon the past, and to mature plans for future operations.

But this study should not engross all the evenings of the boys. Our Creator endowed us with *social* feelings, and the entire family, and the young people of neighboring families, should often meet in social gatherings, for the purpose of mutual improvement and *enjoyment*. The parent and child, the aged and the young, should *all* unite in making the time pass in a pleasant and profitable manner. The sports and sallies of youth, will cause the warm blood to flow more freely through the heart of the aged, and the wisdom of years will improve the minds of the young.

Taste, and a love for the country and rural pleasures, that can so easily and cheaply be gratified, will soon eradicate the yearnings for the exciting and destructive amusements of the cities, and the sons and daughters of the soil, that have been trained in the manner indicated, will "love with intense affection, every foot of ground they tread upon, every tree, and every vine, and every shrub that their hands have planted, or their taste trained;" and their affections will be centered in that *family home*, where their minds and affections were first developed, and where they were first taught to aspire for the happy and honorable position of the *true "Country Gentleman."* C. H. Cleaveland. *Waterbury, Vt., Dec.*, 1852.

Answers to Inquiries.

Messrs. Editors—What is the value of oil cake, as compared with corn meal for fattening cattle?

Where meadows become "run out," is it the better way to "top-dress" them with manure? and if so, the right time for doing it?

To your correspondent, T. T. C., I would say—warm stables, water in the yard or stable, good care, would save something in the way of fodder. S. *Malone, N. Y.*

We are not aware of any experiments which have been made in this country, to determine the relative fattening properties of oil cake and Indian corn. Boussingault, however, *estimates* the comparative value from analysis, which, in this instance, may be relied on with considerable confidence, at 59 lbs. of corn to be equal to 22 lbs. of linseed cake. It is worthy of inquiry, whether oil cake may not vary considerably in quality, according to the degree of pressure to which it has been subjected in differed mills, and whether the oil cake of this country may not differ from that examined by Boussingualt.

We have in all cases found it decidedly best for renovating old meadows, to plow them up, manure and crop the ground, and then seed down *heavily*—sowing three or four times as much grass seed as the usual quantity. Observations satisfy us that no old meadows or old pastures are equal to new ones prepared in this manner. We have raised between four and five tons of hay per acre on a two-year meadow, consisting of land of moderate fertility, by sowing a bushel of seed per acre, consisting of equal portions of clover and timothy, harrowed in lightly early in spring, and constituting the only crop on the ground at the time.

Messrs. Editors—Can you inform me through the pages of the Cultivator, at what time the "fly" deposites its eggs in the wheat plant. I am about trying some experiments to prevent their depredations on the wheat crop, and I desire to know as near as possible their time of attack. Yours respectfully, F. B. Poley.

According to the most accurate observers, the Hessian fly passes annually through two generations. The perfect insects usually commence depositing their eggs about the first of autumn, and continue for some three weeks. This period, however, varies considerably. It hatches and continues in the larva state through winter, near the root of the wheat plant, is changed to the pupa early in spring, and soon comes out the perfect fly, about three or four weeks after the disappearance of frost from the soil. These insects deposit their eggs and soon perish, the larva from which enter the pupa or flax-seed state, about the first day of summer, or when the wheat is beginning to throw up its heads. During the latter part of summer, these again emerge in the state of flies, and furnish eggs for the autumn brood.

Literary Notices.

The Horticulturist, *and Journal of Rural Art and Rural Taste.* Edited by P. Barry, and published by James Vick, Jr., Rochester, N. Y.—The announcement of Downing's Horticulturist in other hands, was received by some with an ominous shake of the head and a long drawn sigh, which told too truly how deep a hold he had on the hearts of his readers. Though this feeling may linger still to some extent, the appearance and contents of the first number will do much to re-inspirit the friends of rural art and rural taste, and assure them that they are still to have a publication, conducted in the same genial spirit, supported by the same contributors, ministering to the same ends, and appealing to the same love of the beautiful.

The January number is rich in illustrations, containing a spirited engraving of Mr. Downing's residence, with a plan of his grounds, and several beautiful illustrations of scenes about and in them, and a lithograph of the *Sheldon* pear. The contents are varied and highly creditable. The following articles are by the Editor: *The Present and Future of American Horticulture; Trees for Streets and Avenues; The Sheldon Pear, When to Prune.* The Home of Mr. Downing is a well written and interesting article, and the number, as a whole, will bear careful perusal. The Horticulturist is now published at $2 a year—an edition with colored plates at $4.

The National Magazine; *devoted to Literature, Art, and Religion.* Abel Stevens, Editor. Carlton & Phillips, publishers, New-York.—This magazine commences its second volume with the January number. While it excludes fictitious writings from its pages, it is not lacking in variety, and the moral and religious articles are of such a tone and character as to add to the value of the work, judged of merely by the standard of literary merit. The contents are almost altogether original, and give evidence of talent, care, and taste. Monthly, at $2 a year, in advance.

Every Thing in its Place.—The man who loses half an hour daily going for or hunting displaced tools, loses 150 hours per year, or about half a month working time.

Notes for the Month.

The Present Season.—Up to the 13th of January, the month had been one of unusual mildness. With the exception of two or three cold days, accompanied with a flurry of snow, the air has been more like April than January. Considerable rain has fallen at different times. On the morning of the 12th instant, an inch or so of snow fell, and during the succeeding night and day, a body to the depth of more than a foot, making the first sleighing of the season.

The Hudson river is still open, though fields of floating ice are moving up and down with the changes of tide. The Argus says: "By referring to statistics on the subject of the closing of the river, we find that the river has not been open at this date for nearly half a century, or since 1810, when it closed on the 19th of January. Since 1790, the river has not closed but ten times in the month of January—twice on the 3d of February, and the remaining seasons in the months of November and December. The following statement presents the dates in January, at which the river has closed in the years mentioned:

1795	Jan. 12	1806	Jan. 9
1796	" 21	1808	" 4
1800	" 6	1810	" 19
1801	" 3	1825	" 5
1804	" 12	1829	" 11

"In 1790 it closed Feb. 3d, and in 1802 on the same day of the month."

Mr. W. Bacon, of Elmwood Farm, Richmond, Mass., writes under the date of Jan. 7: "The season up to the present time has passed beautifully away. Scarcely five inches of snow has fallen in all our flurries, and the greatest depth at one time was two and half inches, about Dec. 15. This consisted, too, mostly of hail, and in a short time was dissolved. We have had some heavy rain storms, but warm for winter. To-day the air is soft and smoky like Indian summer. Animals of all kinds are enjoying themselves in warm sunbeams, and sheep are loth to be restrained in yards. All this fine weather has proved an immense saving of fodder, and if it should continue, hay will be cheaper next spring than last fall. Stock looks well, and withal bears a good price."

U. S. Ag. Society—The first Ann .Meeting of the United States Agricultural Society, will be held in the Smithsonian Institute, Washington city, on Wednesday, the 2d day of February next, at 10 o'clock, A. M.; the officers of the Society for the ensuing year are to be elected. The importance of strengthening in its infancy, an Institution which has for its object the promotion of our National Agriculture, it is hoped will secure the attendance of a large number of members. Robert C. Walker, Rec. Sec.

New Mowing and Reaping Machine.—Mr. Horace L. Emery, of this city, well known as the inventor of the Railroad Horse Power, which took the first premium in its class at the trial of implements at Geneva, and of which 800 were sold in 1852, has recently secured a patent on a mowing and reaping machine of his own invention. He claims that "while it is the most compact, light, simple, cheap, durable, easy-working machine, it is at the same time the most perfectly adjustable, portable, and easily convertible into a mower or reaper, working as perfectly in either form, as those of the best of other kinds, whether simple or combined."

We shall soon be able to present a cut of the machine, with diagrams, showing its peculiarities and advantages.

☞ Hon. Henry Wager, President of the N. Y. State Ag. Society, we regret to learn, has been compelled by the state of his health, to seek a milder climate for the winter. He sailed from New-York for Savannah, with the intention of visiting Cuba.

Sale of Blood Cattle.—We hear that Col. Sherwood, of Auburn, proposes to dispose of a large part of his fine Short Horns at public sale, in June next. If so, it will afford a rare opportunity for obtaining choice animals from the best herd in the state.

Winter Pear.—Mr. James Wilson, the well-known Nurseryman and Florist of this city, presented us a few days since, with a dozen *Inconnu Van Mons* Pears. They were just ripe, and proved juicy, and of moderately fine flavor—a good winter pear. Mr. W. informs us that the tree is very hardy, a free grower, and very productive.

Grapes.—We have received from Mr. J. S. Goold, of this city, a basket of Catawba Grapes. They were preserved in dry ash saw-dust, and were in good order.

Devon Herd Book.—L. G. Morris, Esq., will please accept our thanks for a copy of "Davy's Devon Herd Book," recently published in England.

Pumpkins and Squashes in Corn-fields.—At an ag. meeting in N. Hampshire, a cultivator stated that he had found pumpkins, squashes and turneps, in corn-fields, to lessen the amount of corn. This is to be expected, as they must, as a matter of course, operate in the same way as weeds. He had also found, by using the corn-planting machine for every alternate row, a difference in favor of the corn-planter of about seven bushels per acre. So much for regularity and perfection of work.

Michigan University.—An Agricultural Department has been organised in this University, consisting of the following course of lectures, which are to commence on April 1st, and end June 30, 1853.

1. Daily lectures on Chemistry, (elementary and experimental,) Chemistry applied to the Arts, Meteorology and Climate.
2. Geology and Mineralogy, and the application of the same to Mining, Drainage, construction of public works, &c., &c., illustrated by specimens from Michigan, the neighboring States, and foreign lands; also, Models and Drawings.

3. Animal and vegetable anatomy and physiology in general, the physiology and diseases of domestic animals in particular, and the structure and habits of insects in reference to grains, trees, and horticultural plants.

4. Organic chemistry and the theory and practice of agriculture, the origin and nature of soils, the different varieties of manure, tillage, tools, &c., &c.

Farm Product Markets.

Albany Market, Jan. 22, 1852.

FLOUR.—We have only a moderate retail business doing, and quotations are entirely nominal.

GRAIN.—Nothing doing from store. *WHEAT*, is held above the views of buyers. In the streets, *BARLEY* 73a76c, *RYE*, 80a83c—*OATS*, 48c—*CORN*, 75c—*BEANS*, $1.50a $1.75; small *PEAS*, 87$\frac{1}{2}$c; Marrowfats, 1.62$\frac{1}{2}$; pink-eyed marrowfats, 1.37\frac{1}{2}$.

PROVISIONS.—At Albany there is only a moderate retail demand for barreled and cut meats. Dressed Hogs have ruled lower, with sales $7.75a8$\frac{1}{8}$ for light to heavy, with some extra lots from Montgomery Co., at 8$\frac{1}{4}$. At Boston the receipts of barreled Pork have been light, and prices instanced at $18a 19 for prime, $21 for mess. Beef steady at $12a14.50 for Western mess, common to extra, and $11a13 for Eastern. Lard scarce, at 13c, bbls and kegs. Dressed Hogs close easier, with large sales to close contracts; about 1,500 head in one lot, at 8a8$\frac{1}{8}$c, principally at 8c. The receipts at Boston during the month have been 11,111 head, against 7,126 head last year. Butter firmer, and sales New-York dairies 19a24c. Cheese 8a9c, choice qualities scarce. At New York, barreled Pork, more doing during the week; receipts by railway light, sales $18.75a18.87 for old mess, $19 for new country, $19.25a19.37$\frac{1}{2}$ for new city mess, $16 for old prime, and $16.50 for new.

Beef active; arrivals by railway large, demand good dan foreign advices favorable; arrivals in prospect limited, while a large demand is looked for; sales 3.000 bbls. at $9.50a11.25 for country mess, $12 50a13 for city do , $13.25a13.50, for repacked Chicago, $5.50a6 for country price. Bacon, demand good and supply moderate, at 10c. for short middles rib in; Western, scarce and nominal. Dressed hogs in light supply, and buoyant at 8a8$\frac{1}{4}$c.; Pickled shoulders dull, 7$\frac{3}{4}$a8c.; Hams fine, 10$\frac{1}{4}$a10$\frac{3}{4}$c.; Lard easier with free receipts, 11a11$\frac{1}{2}$c. for common, and 11$\frac{1}{2}$a12 for kegs. Butter, dull with free receipts; Ohio, 14a18c.; State dairies, 18a24c.; Orange county, 25a28c. Cheese delined to 8c. at which rule sales for export.

SEEDS.—Nothing doing at this market. At Cincinnati, the market is quiet at $5.60a5.75 for Clover, and Timothy $1.50a1.60. At New-York, demand fair for export; sales, Ohio, clover, 10$\frac{1}{2}$c.

WOOL MARKET.

No sales of fleece in the Albany market; pulled ranges from 16a50c. In New-York on the 14th, supply light, less active, but prices are very firm, with small stock. 20,000 lbs. common domestic fleece sold at 51c.; 10,000 lbs. Pulled, at 40a55c; Foreign is quiet. Clothing Wools are most wanted. A few parcels Buenos Ayres sold at 13a14c for washed. At Philadelphia on the 10th, prices were fully sustained. 100,000 lbs. including 60,000 lbs. tub and $\frac{1}{4}$ blood at 50a51c.; 8000 lbs. washed Mestizo at 32c, and 5000 lbs. African on private terms. At Providence, not much doing; sales of fleece, 43,600 lbs. at 46a55c., and of pulled 35,000 lbs. at 37a54c.

CATTLE MARKET.

At Albany, 500 beeves, extra 6a6$\frac{1}{2}$c, first quality 5$\frac{3}{4}$c, 2d do 5$\frac{1}{4}$a5$\frac{1}{2}$c, 3d do 4$\frac{1}{2}$c At New-York, 2100 head at Washington drove-yard, prices ranging from 6a9c; at Chamberlain's, 600 head, with sales at 6$\frac{1}{2}$a8$\frac{1}{2}$c. At Cambridge, extra $6.50a6.75; first quality, $6, 2nd do $5.25a5.50, 3d do $4.25a 4.50, ordinary $4. At Brighton, extra $6.25a6.50, first quality, $5.25a6, and second $4.25a5. At Albany, cows and calves $22, $25 and $40. At New-York, at Browney's, 45 offered and sold at $22.50a45. At Chamberlain's, 30 offered and sold at a range from $25, 35a45. At Cambridge, $19, 29, 31 and $37. At Brighton no sales.

At Albany, Sheep and Lambs, 1150 in market. Sheep, $2 50a5, lambs $1.25a3. At New-York, at Browney's, 4000 offered and sold at $2.50a4.50a5 for sheep, and $1.50a3.50 for lambs. At Chamberlain's, 5000 offered; sales at $2, 2.50a 4.50, and 1 25a2.50a4. At Cambridge, 2600 at market; quality very superior; extra $3.50, 4, 5a25; by lots $2.25, 2.50, 2.75, 3a3.25. At Brighton, small lots 2.50a3.50, and wethers $4a4.75, and $6a6,50.

Agricultural Chemistry—Yale College.

A COURSE OF LECTURES on Agricultural Chemistry will be given by Prof. J. A. Porter, commencing January 10th, 1853, and continuing two months and a half. The following subjects will be considered:

1st. The sources of the food of plants, and the nature and properties of the mineral, gaseous, and organic substances, which administer to their growth.

2d. The process of growth by which these substances are converted into vegetable matter, and the laws which control the change.

3d. The nature and properties of the different kinds of vegetable matter thus produced.

4th. The means of promoting growth, and increasing the product of the soil, including a consideration of natural and artificial manures, and their preservation and application, the rotation of crops, draining, irrigation, and the feeding and fattening of animals. The results of the latest experiments will be presened to the class.

The Lectures will be made perfectly simple and comprehensible, assuming no previous scientific knowledge on the the part of the hearer. They will be illustrated by experiment, whenever this is practicable. The plan of the course will be more fully set forth in an Introductory Lecture, to be given January 10th, the first Monday of the winter term, at 12 o'clock, in the Geological Lecture Rooms.

Fee for the course, $10.

New-Haven, Ct., Jan, 1. 1853—w8t

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y. Braintree, Mass.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

For Sale.

THE subscriber offers for sale thirty Merino Ewes, and four Buck Lambs. The lambs are one-half blood of the "Atwood" breed. The sheep are pronounced by manufacturers, to be the most profitable in the State.

LEVI S. WELLS.
Feb. 1—m2t. New-Britain, Hartford Co., Ct.

Clarke's Excelsior Churn.

FROM present indications, 100 to 500 Excelsior Churns are needed, and can be sold in every dairying county of the the Union. The proprietor will give any information he may possess in relation to the most profitable treatment of the *dairy*—also a full description of the Excelsior Churn, without charge, to all who wish Prices—Crank Churn, favorite sizes, delivered on Railroad at Utica, $7.00 and $10.00 each. Irons for Milk Churn, which can be made of any good iron hooped cask or barrel, $1.00 per set. References and guarantees given. Agents wanted Apply at any time, post paid, to GEO. B. CLARKE, Leonardsville, Madison county, New-York, 1853.

GEO B. CLARKEE—Dear Sir: The package of butter which I purchased of you, proves to be of the first quality, and will be kept for family use. I have purchased over 30,000 pounds for market this season, and have paid *three cents per pound above the market price* for this package, made in the Excelsior Churn, which will highly recommend it to the attention of dairymon. MAXON CLARK, JR. Brookfield, N. Y., Dec. 9, 1852. Feb. 1—m1t.*

Reply to C. H. McCormick's

Review of the Report of the Committee, on the Trial of Reaping and Mowing Machines, at Geneva, N. Y.

Mr. Tucker—The flutterings of a wounded bird are so mingled with expressions of pain, that it is perfectly natural that sympathy should be excited; and this seems to be the object for which the review is made. But as it contains many erroneous assertions, both in regard to my machine, and to the high and unimpeachable character of the committee, and put forth from purely interested motives, I deem it necessary to expose some of its errors and absurdities.

Mr. McCormick opens his long article, by the statement that he will "prove from the facts reported by the committee of the New-York State Agricultural Society, as well as from other facts, not reported by them, the superiority of his Reaping and *Mowing* (remember, *and Mowing*) Machine, over all others in use, the award of said committee to the contrary notwithstanding."

I will show, from the stubborn facts in the case, and from Mr. McCormick's own acknowledgment, that he has utterly failed in furnishing the proof promised, as well as that his machine failed in said trial, and that his allegations against the said committee. are not, nor can not, with any shadow of reason, be sustained. In the first place, he vainly attempts to exhibit the superiority of his cutting apparatus, basing his whole argument upon the figures contained in the report of the *committee*, representing his machine of less draft than others; and here let it be noticed, that through the whole extent of his able research, he fully relies upon and attaches the utmost importance to the report, as far as it is favorable to his own particular machine, and unfavorable to others; and that which is favorable to others, he sets aside as a fabulous thing. But to the cutting apparatus; it is very apparent that the report of the committee possesses a far greater *cutting* principle, applied to Mr. McCormick's machine, than his machine possesses, applied to cutting grass. This cutting report says, in relation to his machine, "the construction of the machine was too fragile for *useful purposes*; the knives yielded after a few swathes were cut. and needed to be replaced by another set; these yielded also—*the stubble was left long and uneven.*" It will be seen by reference to the tabular statement, that his machine in mowing, left the stubble an average height of five inches. It is self-evident, that cutting five inches above the ground, the tendency and liability to injure the knives was much less than when cutting, as my machine did, within two and half inches of the ground, on an average. Yet the knives of my machine did not *yield*. and were not sharpened during the trial. Every man, of any experience, knows that in mowing with a machine, much more power is required to cut close to the ground, than to cut a heighth of five inches. The average height alone, is sufficient to show that Mr. McCormick's machine cannot be of the least utility whatever for mowing. The committee further say of it—"During the action of the machine, the horses were subject to a *heavy side draft;*" Mr. McCormick, it seems, would wish to be understood, that the various drafts of the machines was fully tested by the Dynamometer, and the figures indicated, give the absolute drafts. I would ask if the heavy *side draft* of Mr. McCormick's machine was tested. and arrived at by the said instrument? It was not. The Dynamometer was attached to the whipple-trees, and indicated only the drafts by the whipple-trees—the *heavy side draft* of course, would not be indicated, as it was not upon the whipple-trees, but on the *neck-yoke*, at the opposite end of the pole. Of the number of lbs. of this *heavy side draft*, there were no means of ascertaining—it was observable by all to be very heavy. The fact, that wherever his machine is used, it is found necessary to use one or two extra horses, expressly to overcome the *heavy side draft;* and the fact also, that the farmers generally, who use his machine, are of one opinion, that it requires about the power of one horse to overcome the side draft, and keep the pole straight, is certainly sufficient proof that the side draft must be at least equal to one-fourth of the whole draft. The draft by the whippletrees, being as tested, 350 to 375 lbs.; then the very low allowance of 100 lbs. for the side draft added, and then if in cutting close to the ground still more power is required, it is most assuredly very explicitly shown, that the whole absolute draft of his machine would reach *over* 450, if not over 475 pounds.

There being no side draft whatever, on the pole or tongue of my machine, the whole absolute draft was arrived at by the whippletrees, and is 400 lbs. The argument here of Mr. McCormick, I think falls to the ground, based exclusively as it is, upon the light draft of his machine, regardless of the height and unevenness of the stubble, and regardless of the durability of the cutting apparatus.

He explicitly acknowledges, after summing up, that the fingers of his machine are too far apart, but very politely explains the matter to the committee, and I am aware that other difficulties were explained to the committee. How ungenerous, then, in the committee, not to give him the first award, in consideration that he might possibly, some time hereafter, furnish a better machine

In the conclusion of his review, he winds up most beautifully. Hear what he says.—"Satisfied from the experience of the past harvest, of the *impossibility* of constructing the same machine both for reaping and mowing, to the best advantage, a separate mowing apparatus will, for the next harvest, be sold with my reaper." This, certainly, virtually acknowledges that he has been unsuccessful in his experiments in mowing, abandons all idea of combination in his machine for reaping and mowing, and concludes to sell a separate mowing apparatus of which the public never before have had any intimation, but still warrants it to work. Will the farmers try so dangerous an experiment?

And now, to what he says in relation to my own machine. One serious *eye-sore* to him, is the adjustibility of my machine. He says it is proposterous to talk of it. I would inform him that my machine adjusts itself to the inequalities of the ground, or can be set to cut at any height desired, when moving along, by the driver. The committee report as follows:

"J. H. Manny's machine—this reaper cut admirably in wheat and barley; the merits of construction were manifest in the barley field, where the driver would raise or depress the knives, as the standing or lodged grain might demand—the water courses also were easily passed; these are valuable features. Manny's machine is peculiar in its construction, by a facility of raising or depressing the cutting apparatus while in motion. at the *pleasure* of the driver, giving to it the capability of cutting the heads of grasses for seed, and afterwards the straw or stem and leaves for fodder. It runs on wheels, is easily moved from place to place, is strongly braced, and by an ingenious arrangement is capable of being contracted into a small compass for housing, when not in use"

The discharge of the grain from my machine, Mr. McCormick pleases to make quite a handle of,—certainly drowning men will catch at straws—though I labored under a very great inconvenience, in not having for the occasion, an experienced raker; my man never having raked from the machine before the day of trial, yet I shall not complain about it; I have the satisfaction of knowing that the binders preferred binding the gavels after my machine, to that of Mr. McCormick's, for the reason that there was no scattering between the gavels, as was the case with others. As to the challenge to meet Mr. McCormick in Virginia, I can cheerfully say, that I am willing and ready to meet him anywhere he pleases, and am willing to abide by the result; and that too without crying if defeated. As we both reside in Illinois, I should think he had some policy in getting so far from home.

Now to Mr. McCormick's attack upon the committee, which seems to be entirely unwarranted. uncalled for, and unjustifiable. Who can question the integrity or the ability of that committee, composed as it was of men of the most respectable standing, and of the very highest order of talent in the State of New-York? Attendance upon that trial, was to them a source of great trouble, inconvenience and expense, as well as an occasion for particular vigilance in regard to their examinations and conclusions. They discharged the delicate and responsible duties imposed upon them by the society, without fear or favor; and only for the laudable purpose of giving to the world the result of a most important test, by which the absolute and relative merits of certain agricultural implements were ascertained. With the report, all seem perfectly satisfied, except a few who could not succeed in advancing their own private interest, to the great detriment of the public good.

Every careful reader of the report, taking the whole together—facts and figures—will arrive at once to the very natural and just conclusion, that the Geneva Trial was a most severe and rigid test, (occupying five days in the trial of Reapers and Mowers) and was decided by the most efficient, capable, and persevering men ever appointed to judge of the merits of similar machines; and that the facts stated, and the conclusions arrived at in said report, are strictly and undeniably correct.

I could not entertain the idea for a moment, that any one of that committee acted under the corrupting influence of bribery, so wantonly insinuated in the article to which this is a reply; and I think the public will demand some proof of the assertion, or else point the finger of scorn at the traducer.

Freeport, Illinois, Dec. 15, 1852. J. H. MANNY.

Valuable Farm For Sale.

THE subscriber offers for sale his Farm, containing 108 acres of first-rate land, situated four miles north of the village of Keeseville, Clinton county. Upon it is a good dwelling house, with convenient out buildings; well fenced into convenient sized fields for cultivation, and for beauty of location, is not surpassed by any in Northern New-York.

Peru, Feb. 1, 1853—6t WILLETS KEESE.

THE AMERICAN PHRENOLOGICAL JOURNAL—VOL. XV,II. for 1853, devoted to Science, Literature, and General Intelligence. Published by FOWLERS AND WELLS, No. 131 Nassau-st., New-York.

PHRENOLOGY, the science of MIND, includes in its wide domain a knowledge of all the faculties, passions, and powers of the HUMAN SOUL; all the bodily organism over which the soul presides, with its structures and functions; and all the realm of nature to which man is related, and with which he should live in harmony. It includes a knowledge of man and his relations to God and to the universe. It is thus a central and comprehensive science, beginning with the CONSTITUTION OF MAN, and ending with all his possible relations, SPIRITUAL and MATERIAL. It is thus that SELF KNOWLEDGE is the basis of all knowledge.

THE PHRENOLOGICAL JOURNAL, therefore, has a sphere that is universal. All philosophy, all science, all art, all the details of practical life, are legitimate subjects of discussion in its columns. The experience of twenty years has not been lost to us; nor, amid the progress of this wonderful age, have we idly lagged behind. THE JOURNAL will endeavor to be still a little in advance of the age, and of its own former efforts.

PHRENOLOGY, the science which unfolds to man the laws of his own Physical, Moral, and Intellectual Being, will still command our first attention; all other subjects being, in fact, but applications and illustrations of the principles of this science. We shall illustrate the varieties of cerebral development by spirited and truthful ENGRAVINGS of striking specimens of Human Nature, in its highest and lowest, its harmonious and discordant, its symmetrical and grotesque developments.

YOUNG MEN, about launching forth upon the activities of life, and anxious to start right and understand their course, will find the Journal a friend and monitor, to encourage them in virtue, shield them from vice, and to prepare them for usefulness and success in life. The various occupations will be discussed in the light of Phrenology and Physiology, so that every one may know in what pursuit he would be most likely to succeed.

THE MECHANIC, the Farmer, the Professional Man, the Student, the Teacher, and the Parent, will find each number of the Journal an instructive and valuable companion.

The Phrenological Journal is published on the first of each month, at ONE DOLLAR A YEAR. Now is the time to subscribe. Address all letters, post paid, to

FOWLERS & WELLS,
Clinton Hall, No. 131 Nassau-st., New-York.

This Journal is doing more to benefit mankind, than all the gold-diggers in the two hemispheres. It is only $1 per year, and is worth ten times that in any family.—*Cleveland Commercial.*

Do you wish to acquire the most important knowledge to be learned in the world? Then know thyself. To do this, send for the Phrenological Journal and read it. No other work now published can be so useful to its readers, and especially the young men and young women.—*New Era.*

A journal containing such a mass of interesting matter, devoted to the highest happiness and interest of man, written in the clear and lively style of its practiced Editors, and afforded at the "ridiculously low price" of One Dollar a Year, must succeed in running up its present large circulation to a much higher figure.—*New-York Tribune.*

☞ Clubs may be made up, and single subscriptions sent in to the publishers at once, for the New Volume. AGENTS WANTED. Feb. 1, 1853—m2t.

NEW GRAEFENBERG WATER CURE.

No Cure no Pay. For further particulars inquire of R. HOLLAND, M. D., New Graefenberg, N. Y.
Jan. 1—w.m. 1t.

$500 IN PREMIUMS.

Special Announcement.

IN order to bring the magazine business back to the old channel of *the mails*, under the reduced postage, the publisher of

GRAHAM'S MAGAZINE

offers premiums amounting to FIVE HUNDRED DOLLARS to the Postmasters or residents of any post-towns in the United States, who will send the largest number of subscriptions, *through the mails* prior to the *first of July*, 1853.

First Premium, $200 for the Largest Club.
Second Premium, $150 for the Second Best.
Third Premium, $75 for the Third Best.
Fourth Premtum, $50 for the Fourth Best.
Fifth Preminm, $25 for the Ffth Best.

And to the TEN next largest a splendidly bound copy of GRAHAM, for one year, with five-dollar binding.

The list of the competitors will be published complete at that time, so that the utmost fairness may be manifest. A statement will also be published on the 10th of June, of those towns which have entered into competition, with the number of subscribers sent from each, up to that time.

The Books of the office will also be subject to the inspection of competitors, and every evidence of *good faith* furnished.

THE TERMS ARE—

Single subscribers,...............	$3
Six subscribers, one year,...	10
Ten " "	16
Thirteen " "	20

Single subscribers may be added, at any time, at the rate of the first club sent.

Competitors need not confine themselves to one post-town, but the names must be forwarded by the competitor *himself*, whether from one or more towns, so as to prevent confusion.

Address, GEO. R. GRAHAM,
134 Chestnut street, Philadelphia.

P. S.—We presume that no Postmaster, with whom we have done business, nor any Editor with whom we exchange, will for a moment doubt, that the statements set forth, as above, *will be lived up to, to the letter, in all respects.* G.
Feb. 1—m3t.

Farmer's, Gardener's, and Planter's Store.

A. G. MUNN, No. 530 MAIN STREET, four doors below THIRD, LOUISVILLE, KY. All kinds of Garden, Flower, Field, and Grass Seeds, and every variety of Agricultural and Horticultural Implements, Chain Pumps and Pump fixtures, constantly on hand, wholesale and retail. Also agents for the different Nurseries in the vicinity. Orders from abroad promptly attended to. Fresh Osage Orange Seed and Osagee Orange Plants.

My stock of Grass Seeds, &c., for the spring of 1853, will consist in part of—

4,000	bushels stripped and clean Kentucky Blue Grass.
1,000	" Kentucky Orchard Grass.
1.000	" Kentucky Red Top.
1,000	" pure Timothy.
1,000	" Red Clover.
1,000	" Kentucky Hemp Seed.

Orders from abroad, accompanied with cash or city reference, will receive prompt attention. A. G. MUNN.
Jan. 13—w8t.

Balsam Firs, Arbor Vitæ, and other Forest Trees.

HENRY LITTLE & CO., of Bangor, Maine, will furnish any number of Evergreen and other Forest Trees, taken up with *earth on the roots*, with the greatest care, and sent to any part of the United States by steamboats or railroads, and carefully packed in large boxes, at short notice, at the following prices, viz:

From 6 inches to 1 foot, at 1 cent, or $10 per 1000.
From 1 foot to 2 feet, at 1½ cents, or $15 per 1000.

The above prices refer more particularly to Balsam Fir and Arbor Vitæ Trees.

We charge what the boxes cost, but nothing for packing.

For three years past, the trees we have procured and sent to a distance, have lived generally, and have given good satisfaction. Evergreens will not live unless taken up with great care. Bangor, Feb. 1, 1853—m3t

---

Short Horns.

I HAVE on hand and for sale, two Short Horn bull calves —one in color red and white, the other chiefly red, the get of *Splendor;* both large, and possessing much *quality, style, symmetry and substance.* JNO. R. PAGE.
Scnnett, Cayuga Co., N. Y., Feb 1—m2t.

Lawrence Scientific School,

HARVARD UNIVERSITY.

THE next term of this Institution will open on the first day of March, 1853, and will continue twenty weeks. Instruction by recitations, lectures, or practical exercises, according to the nature of the study, will be given in

Astronomy, ...	by Messrs. Bond.
Botany,..............................	Prof. Gray.
Chemistry, analytical and practical,..	Prof. Horsford,
Comparative Anatomy & Physiology,	Prof. Wyman,
Engineering, ...	Prof. Eustis.
Mathematics, ...	Prof. Pierce.
Mineralogy,..	Prof. Cooke.
Physics, ...	Prof. Lovering.
Zoology and Geology, ...	Prof. Agassiz.

For further information concerning the School, application may be made to Prof. E. N. HORSFORD,
Dean of the Faculty.

Cambridge, Mass , Jan. 1, 1853—w3m2t

New-York Agricultural Warehouse and Seed Store.

WE have constantly on hand, the most extensive assortment of the best and latest improved Agricultural and Horticultural Implements, and Field and Garden Seeds, ever offered for sale in the United States, embracing every Implement, Machine, or Seed desirable for the Planter, Farmer, or Gardener. Also Guano, Bone Dust, Poudrette, Plaster of Paris, and Super Phosphate of Lime. Durham, and other improved breeds of Cattle and Sheep.

R. L. ALLEN.
Jan. 1, 1853—tf. 189 and 191 Water St., New-York

ALBANY MEDICAL COLLEGE.

Spring Course of Lectures.

THE next course of Lectures will commence on Tuesday, February 8, 1853, and continue sixteen weeks.

Surgery—ALDEN MARCH, M. D.
Theory and Practice of Medicine—JAMES MCNAUGHTON, M. D.
Materia Medica—T. ROMEYN BECK, M. D.
Anatomy—JAMES H. ARMSBY, M. D.
Chemistry—LEWIS C. BECK, M. D.
Institutes of Medicine—THOMAS HUN, M. D.
Medical Jurisprudence—AMOS DEAN, Esq.
Obstetrics—HOWARD TOWNSEND, M. D.

Clinical Instruction will be given regularly during the session, at the Hospital and College.

Fees for the first course, $60; second course, $50; Matriculation fee, $5; Graduation fee $20. Students who have attended two full courses of lectures at other institutions, will be required to pay $10.

☞ Graduates of this College, and of Institutions where the requirements are the same as at this, will have FREE admission to the Lectures. Albany, Dec. 4, 1852.

Jan 1—m&w2t THOMAS HUN, Registrar.

Valuable Farm for Sale.

THE subscriber offers for sale four hundred and fifty acres of land, being a part of his homestead, and comprising two hundred acres of as desirable land as any in Addison county—lying on the main road four miles north of Vergennes on the border of Lake Champlain, and one mile from the Railroad Station. It is under good cultivation, and furnished with commodious buildings. The remaining 250 acres is wood land; a portion of it covered with a heavy growth of hemlock and other valuable timber, and the remainder with the best quality of wood for fuel. The property will be sold together or in parcels. Postpaid inquiries promptly responded to.

ROW'D T. ROBINSON,
Aug. 1—tf. Ferrisburgh, Addison co., Vt.

The Lodi Manufacturing Company

OFFER their Poudrette this season at their usual rates, viz: One barrel, $2.00—2 barrels, $3.50—3 barrels, $5.00—5 barrels, $8.00—6 barrels, $9.50, and any amount over 6 barrels $1 50 per barrel. Delivered free of cartage or other expense, on board of vessel or railroad, in the city of New-York. ☞ A small trial requested.

This article is so well known, and so universally approved of as a manure for corn and garden vegetables, that an extended advertisement is scarcely necessary. The Company will send free of cost, to any one wishing further information, a pamphlet containing instructions for use, &c.—also certificates from Hon. Daniel Webster, A. J. Downing, and others, together with other interesting matter. Orders sent by mail, enclosing money, will be promptly acknowledged. All communications must be post-paid, and addressed to the "Lodi Manufacturing Company, New-York," office 74 Cortland Street. Jan. 1—m5.w5t

---

United States Agricultural Warehouse and Seedstore

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine —also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, arm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers. Jan 1, 1853—m&wtf.

Agricultural Implements.

STRAW AND STALK CUTTERS—of all patterns.
CORN MILLS—both of Iron and Burr Stone.
CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.
ROAD SCRAPERS—of several patterns.
FANNING MILLS—of all the best makers.
SAUSAGE STUFFERS AND CUTTERS—of all patterns.
VEGETABLE OR ROOT CUTTERS—of approved kinds.
CORN SHELLERS—for hand and horse power.
VEGETABLE BOILERS—of Mott's and Bent's patterns.
GARDEN AND WHEEL BARROWS—of iron and wood.
HAY AND COTTON PRESSES—Bullock's patent
BRICK MACHINES—of Hall's and other makers.
WAGONS AND CARTS.
PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam PLOWS—Eagle, Massachusetts make, and Minor & Hortons.

For sale at the State Agricultural Warehouse, No. 25 Cliff Street, New-York. Nov. 1—tf.

Albany Drain Tile Works.

No 60 Lancaster Street—West of Medical College, Albany.

THE subscriber has now on hand, Draining Tile of the following descriptions. Prices reduced.

HORSE SHOE TILE.

5½ inch Rise, or	4½ inch Calibre, ...	$18 00 pr. 1000.
4½ " "	3½ "	15 00 "
3½ " "	2¾ "	12 00 "

SOLE TILE.

4½ inch Rise, or	3½ inch Calibre, ...	$18 00 pr. 1000.
3½ " "	2¾ "	12 00 "

These Tile are over one foot in length, and are so formed as to admit water at every joint, draining land from 12 to 20 feet each side of the drain—being the cheapest and most durable article used.

Tile sufficiently large for drains around dwellings, at $4 and $8 per 100 pieces. Orders from a distance will receive prompt attention.

Albany, April 1, 1852—tf. JOHN GOTT.

New and Important Insurance.

Northern N. Y. Live Stock Ins. Co., Plattsburgh N. Y.

INCORPORATED by the Legislature of the State of New York, July, 1851. Horses, Cattle, and all kinds of Live Stock insured against Death, by the combined risks of Fire, Water, Accidents, Diseases, &c CAPITAL, $50,000.

GEORGE MOORE, Plattsburgh, Sec'y.
I. C. MIX, Fort Ann, Gen. Agent.

October 13, 1851.

This company are now organized and ready to receive applications for insurance. It is confidently believed that the owners of valuable animals will avail themselves of the advantages offered by this mode of protection. If fire, life and marine insurances are proper and expedient, so is live stock insurance: the reasons for insurance are equally applicable to all.

For terms please apply to Company's Agents.
Plattsburgh, July 1—tf.

Contents of this Number.

The Farmer's Influence,........................... 41
Tull's System of Culture,........ 42
Use of Lime and Marl—Large and Small Potatoes,... 43
Form of Ox-yokes—Can Farming be made Profitable, by H. C. W., ... 44
Fall Plowing, by Dr. O. C. Gibbs—Making and Saving Manure, by Composter,........................ 48
Advantages of Agricultural Reading, by C. E. Roffee —Self-styled "Scientific Agriculture," by N., ... 49
Zimmerman Wheat, by W. C. Hoffman—Experience in Raising Corn, by G. A. Shufelot, ... 50
Intellectual Position of Farmers—George Renick, Sr., 51
Agricultural Museums, by Observer,............... 53
Crosskill's Clod Crusher—A Home in the Country,.... 54
Victoria Regia—Large Facts in Small Fruits, by R. G. Pardee, ... 56
North-western Fruit Grower's Association—Fruit Trees, &c., ... 58
The Kitchen Garden—Hot-beds.................... 59
Visits to Green-Houses—Hort. News, ... 60
Feeding Troughs for Sheep—Spanish, French, American and Mauchamp.Sheep, bw S. W. Jewett,..... 61
Spayed Cow—Error Corrected, by S. & L. Hurlbutt, 62
Agricultural Societies—Ag. Papers,................ 63
How to raise Farmers, by C. H. Cleaveland, M. D., 64
Answers to Inquiries—Literary Notices,............. 66
Notes for the Month, &c., ... 67

ILLUSTRATIONS.

Forms of Ox-yokes,..... 44
Crosskill's Clod Crusher,. 54
Norwegian Harrow, ... 54
Victoria Regia,.......... 57
Troughs for Sheep, ... 61
Spayed Heifer,.......... 62

North River Agricultural Warehouse,

No. 53 Courtland-street, New-York.

GEORGE H. BARR & CO., invite the attention of Farmers, Planters and others, to their large and varied assortment of Agricultural Implements, Manures, Seeds, &c., &c., all of which will be furnished at the lowest prices.—Their assortment includes

PLOWS—All the improved kinds by the most approved makers.

HORSE POWERS—Of all kinds and sizes, with and without Thrashers, &c.

CORN SHELLERS—All the improved kinds, and some of recent introduction.

STRAW CUTTERS—Of all sizes and kinds, for hand and horse-power

CORN AND COB CRUSHERS—Of all kinds and sizes.

FANNING MILLS, Cultivators, Harrows, Agricultural Barometers, Churns of all the approved kinds, Rakes, Hoes, Forks, and a general assortment of Horticultural and Garden tools. Feb. 1—2t

Seeds.

THE undersigned being aware of the strong prejudice existing among Market Gardeners and others, in relation to seeds as usually sold by Agricultural Warehouses, have engaged the services of Mr. James Hogg, so long known to the public as a competent Seedsman, and have placed this department of their business under his control. They have also made arrangements with Prof. Mapes, and others engaged in seed raising, to furnish them with an assortment of the choicest seeds. Their Foreign and California arrangements will ensure, in addition to garden seeds, a fine assortment of Bulbs, Flower Seeds, &c., &c.

GEO. H. BARR & CO.,
North River Agricultural Warehouse,
Feb. 1—2t 53 Courtland-street, N. Y.

Mammoth Nutmeg Potato.

A FEW SACKS of these superior Potatoes may be had for seed of the subscribers. These Potatoes have never been diseased, and are as hard and firm when one year old, as when dug. They ripen in June, being among the earliest known variety. Price $2 per bushel.

North River Agricultural Warehouse,
53 Courtland-street, N. Y.,
Feb. 1—2t GEO. H. BARR & CO.

Manures.

FERTILIZERS of all kinds for sale by the subscribers.

IMPROVED SUPER-PHOSPHATE OF LIME, Superphosphate of Lime—both the above made after the recipe of Prof. Mapes.

PERUVIAN GUANO, Sulphuric Acid, Bone-Dust, Potash Sparlings, Poudrette, Plaster of Paris, &c., &c.

GEO. H. BARR & CO.,
Feb. 1—2t 53 Courtland-street, N. Y.

Seneca Lake Highland Nurseries,

Havana, Chemung Co., N. Y.

PRICE and descriptive Catalogues furnished gratis, to all applicants by mail. Here can be had, at wholesale or retail, all kinds of Fruit Trees, both Standards and Dwarfs, of the largest size, and best varieties. Ornamental trees and Shrubs, Roses, Green House Plants, &c., &c.

Persons wishing to set Apple Orchards, wsth *large* trees, can be suited here.

Among other Nursery stock, fifty thousand Cherry trees can be had.

Packages amounting to $10 and upwards, delivered free of charge at New-York and Dunkirk, or any intermediate station on the N. Y. & E. Railroad. E. C. FROST.

Feb. 1, 1853—c1t

Superphosphate of Lime.

THE genuine article, manufactured by C. Deburg, in bags of 150 pounds each. The subscribers have made a contract for a large quantity, and are now prepared to supply any demand. Farmers and gardeners would do well to call on us before purchasing elsewhere, as we are now able to sell for a less price than heretofore offered. Every bag is branded C. Deburg, Extra No. 1.

Feb. 1—ctf LONGETT & GRIFFING,
State Agricultural Warehouse, No. 25 Cliff-street, N. Y.

Manures.

PERUVIAN GUANO, 2¼ to 2½ cents per pound.

BONE DUST, when taken in equal quantities, $2.25 per barrel.

BONE SAWINGS, separately, $2.50 per barrel.

PLASTER, $1 to $1.25 per barrel

POTASH, 3¼ to 4 cents per pound.

CHARCOAL, $1 per barrel.

SULPHURIC ACID. 2¼ to 2½ cents per pound.

SUPERPHOSPHATE OF LIME, 2½ cents per pound.

WOOD'S RENOVATING SALTS, one cent per pound.

For sale at the State Agricultural Warehouse, No. 25 Cliff-street, New-York. LONGETT & GRIFFING.

Feb. 1—ctf.

THE CULTIVATOR:

A MONTHLY JOURNAL OF

Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 CENTS A YEAR.

This standard Agricultural Monthly commences with the new year, its Third Series. It is published in the same superior style, and will now be more valuable than ever, as the choicest Agricultural and Horticultural articles in The Country Gentleman will appear in its pages. The price hereafter will be as follows:

Single copies, Fifty Cents—Eight copies $3—any larger number at the same rate.

All subscriptions must commence with the January No., and the payments must in all cases accompany the order for the paper. LUTHER TUCKER,
Publisher, Albany, N. Y.

Postmasters and all friends of agricultural improvement, are respectfully invited to act as agents for The Cultivator and The Country Gentleman.

THE COUNTRY GENTLEMAN

IS PUBLISHED EVERY THURSDAY,

By LUTHER TUCKER, Proprietor,

At 395 Broadway, Albany, N. Y.

LUTHER TUCKER and JOHN J. THOMAS, Editors.
JOSEPH WARREN, Assistant Editor.

Terms.—To City Subscribers, whose papers are delivered by carriers, $2.50 per year.

To mail Subscribers, $2.00 a year, if paid in advance—or $2.50 if not paid in advance.

The postage on this paper is but 6½ cents per quarter—payable in advance—to any part of the United States, except the county of Albany, where it goes free.

Advertisements.—A limited number of advertisements will be inserted, at the rate of $1.00 per square of 12 lines for the first insertion, and 50 cents for each subsequent insertion.

THE CULTIVATOR.

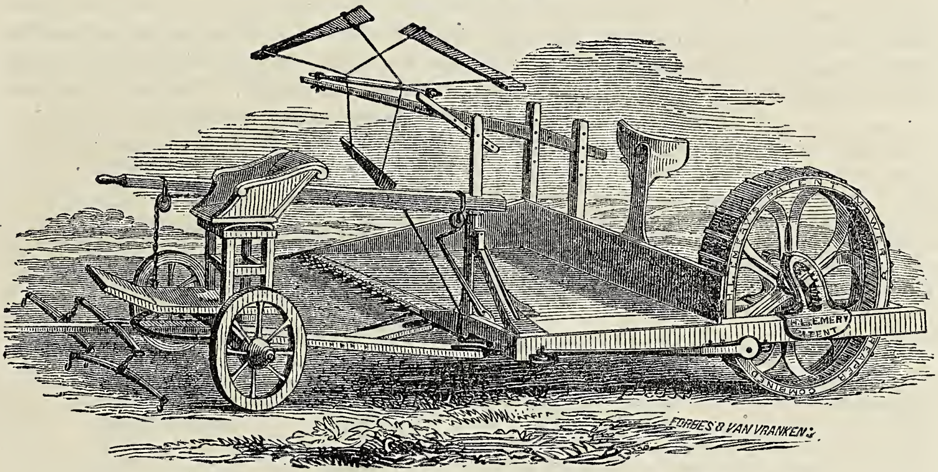
FORBES. VAN VRANKEN. N.Y.

THIRD SERIES.

To Improve the Soil and the Mind.

Vol. I. ALBANY, FEBRUARY, 1853. No. II.

EXTRA.



EMERY'S MOWER AND REAPER, COMBINED.

The above engraving represents, partially, the invention of H. L. Emery, of this city, of a Reaping and Mowing Machine.

Our columns are so crowded with other matter, and this description, promised in this number, we issue it as an extra in a form which can be preserved and bound with the work if desired. As only a portion of the engravings are yet completed, we cannot give it in full, until next number, and therefore only describe its main features, as it appears when arranged for cutting Grain.

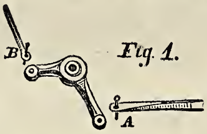
As will readily be seen, it is provided with a driver's seat and wheels, independent of the machine itself, but attached by hinges in such a manner as to allow an easy action and adjustment, while this method does away entirely with all the side draft.

The machine itself is provided with a large main wheel, being about forty inches diameter and eight inches face, with the necessary projections on its surface. This wheel is cast with an internal gearing at one side of the spokes, the teeth of which are protected from dirt and strengthened by a deep flange of nearly three inches. This flange is represented by that part of the cut bearing the words "*Mower and Reaper, Combined.*" The main frame is suspended from this wheel, by means of adjustable pinion boxes, the boxes being hung inside of hangers attached to the frame itself. By applying a kind of wrench to the box, (which projects far enough beyond the hangers, and is made square) it may be turned ; thus by the action of its teeth on the corresponding teeth on the hanger, the frame itself is raised or lowered to any desired point, where it is confined by a simple iron key.

A small pinion is placed inside of this large wheel at the forward part, and its shaft confined to the under side of the frame itself, this shaft extending far enough outside to receive an eccentric close up to the frame.

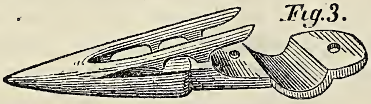
The motion of the cutters is obtained by eccentric straps and connecting rod, passing along the outside of the frame to the fore end, where it connects with an elbow or knee iron, as shown at A, in fig 1. This elbow extends its other end through to the front of the main frame, as seen at B, and is confined in position by a heavy substantial bed-plate of iron. The end of the cutter bar itself, connecting with the elbow at B, has its motion simply and directly from the main wheel, all parts working constantly in line, giving a stroke of eight inches by the eccentric, and each end of the elbow being eight inches from its centre of motion, causes on either end a deflection of but five-eighths of an inch beyond a straight centre line. At the same time, the cutters have as much velocity, as the best reapers and mowers in use. They make but half the reverses or vibrations, and require less than half the weight of cutter bar and connections of either of them, while it is equally strong.

Fig. 1.



The cutters and dividers are not dissimilar to those used by the first premium mowing machine at the late trial by the State Society, with the exception that the divider is made to fit round the under side of a wrought iron cutter beam, the beam itself being made of two plates of wrought iron rolled into a sort of trough, with their concave faces placed together, and then firmly riveted, thus forming a hollow beam (which will be illustrated in future notice) to which all the dividers are attached. An enlarged but imperfect representation of the divider is shown in fig. 3.

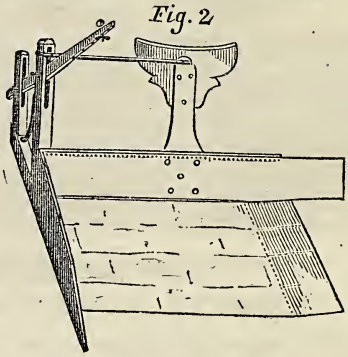
Fig. 3.



Through this hollow beam a shaft is passed, and at its extreme end this shaft is turned at right angles to the rear of the beam about two feet, and a wheel attached to its rear end, to support the outer end of the beam. At the inner end of this shaft is attached a sort of crank or lever about two feet long, extending forward towards the driver's seat, with a leather strap or chain attached to it. This strap, passing upwards and over a shieve, extends along the large lever to the driver's seat, and passing another shieve, and is then attached to the foot board of the driver. This main lever, which is seen passing the driver's seat, is made permanent to the machine itself, and is kept in its desired position or elevation, by means of an upright post beside the seat, with a series of catches and latch, operated by the driver's foot, so that while the person is raising the lever with his hand, with his foot he loosens or confines it where he desires.

Therefore, while he raises the lever, lifting by it the side of the machine directly in rear of himself, the strap or chain is drawn over the shieves, and the end of the wrench lever is raised sufficiently to turn the crank shaft which extends through the cutter beam, and by this being turned, the wheel at the outer end becoming a fulcrum on the ground, the beam itself must be raised at its outer end so as to maintain a uniform elevation of its whole cutting front from the ground. This rear wheel and action is screened by the apron in this cut, but will appear in (a cut of the mower when the apron is removed,) in a future number.

Fig. 2.



The apron itself is shown with its fixtures in fig. 2, detached. It is made of a strong frame work and light covering of wood and tin. The T standard at its back is a breastwork to protect and support the raker, who stands erect, face forward, directly behind it. The delivery is at one side, and has a slight elevation above the cutters, about 1 1-2 inches, and is over four feet wide. A reel may be used at pleasure, and is always sold with the machine. The reel is driven by a pulley on the main wheel shaft—the band passing below the apron to the front side, where it passes upward to and over a pulley on the reel shaft. The band and pulley have been omitted by the engraver, although in his sketch made from the machine.

We shall be able hereafter to present engravings of the mowing machine, and other cuts intended to illustrate more fully the distinct features of this machine.

Price complete for this machine will be about one hundred dollars, with the warranty as given with the Horse Powers and Threshing Machines, so widely and favorably known as Emery's Patent.

Newly Invented

MOWING

AND

REAPING MACHINE,

PATENTED BY

HORACE L. EMERY,

ALBANY, N. Y.

Such has been the condition of the people of our country, that in many portions of it, manual labor has been found inadequate to the task of harvesting grains and grasses in proper time and manner, while in all sections, the cost of manual labor, where to be had, has often been too expensive for profitable farming.

These facts have caused hundreds of thinking minds, for some years past, to turn their attention to the subject of substituting other more expeditious, as also cheaper methods of effecting the same.

As the muscular power of the horse is known to be equal to that of seven men, while the cost per day for boarding and employing a horse is only equal to that of one man, this source has been looked to as the most feasible.

With what success, it is only necessary to refer to the late Exhibition and and Trial of Mowing, Reaping and Threshing Machinery, under the direction of the committee of the State Agricultural Society at Geneva, where were collected the finally successful results of the experiments of years by hundreds of minds.

With all this before us, whoever now attempts the construction of Agricultultural machinery for the above purposes, must be blind indeed to make an unsuccessful attempt in constructing machines for either of the above classes of farm labor.

Therefore, the subscriber, not only having made himself practically acquainted with the construction and working of all the successful machines of this class, but having made and successfully introduced several valuable improvements in some of the above classes of machinery, which have already gained favorable and world-wide reputation and adoption, flatters himself that he has also made an improvement in the construction of a Mower and Reaper of equal if not greater merit, than any of his former improvements.

It will suffice to say, that while this is the most compact, light, simple, cheap, durable, easy working machine, it is at the same time the most perfectly adjustable, portable and easily convertible into a Mower or Reaper, working as perfectly in either form as those of the best other kinds, whether simple or combined.

The main wheel being 40 inches in diameter, 8 inches face; the whole contains but one gear and pinion, and that an internal one. The frame itself is so suspended upon the axis of the main wheel, as to be elevated and depressed at pleasure, so as to secure a horizontal or inclined (forward or back) position of the whole machine, at whatever elevation used, thus always having the cutting works in proper position.

In reaping, a reel is used, and the raker stands erect, face forward, and directy behind the center of the platform, with a support about him; the movable platform being on the same plane with the frame-work at the side of the discharge, and at the same time about two inches above the stubble. With the above introduction, and the directions and diagrams to follow, together with those in this number of the Cultivator, and also with prices, terms of sale, warranty, &c., which will appear in next month's papers, the public will have before them the several machines from which to maks a selection before purchasing for the coming season, and at the same time know what they are purchasing, much better than to be guided alone by impracticably written and published reports of committees of public trials.

As this is the age of humbug, it becomes every purchaser to look well to his dollars before parting with them for that which will prove worse than useless, and purchase only such articles as have their practical as well as theoretical merits plainly pointed out, or if not so pointed out, to purchase only of responsible manufacturers, who are willing to back their machines by their reputation and capital.

For further particulars concerning the Reaper and Mower above described, address

HORACE L. EMERY,
(*Care of* EMERY & Co., *Albany*, *N. Y.*)

EMERY & COMPANY,

Sole Manufacturers for the United States,

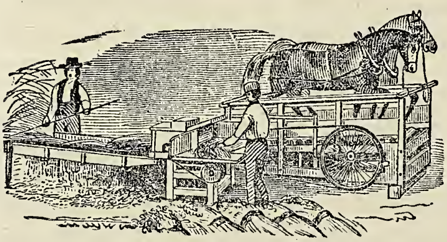
OF THE

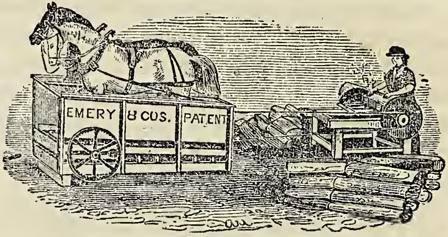
New-York State Agricultural Society's

FIRST PREMIUM

(Three years in succession, at their Annual Fairs and Trials,)

RAIL ROAD HORSE POWER.





Patented by H. L. EMERY, Feb. 24, 1852.

WAREHOUSE AND SALES ROOMS,

369 & 371 Broadway, Albany, N. Y.

This Power is admirably adapted for driving Threshing Machines, Circular Saws, Cotton Gins, as also Machine Shops, Elevators, Ferry Boats, Discharging and Loading Vessels, Pile Driving, Cross-cut Sawing, Pumping, Grinding Grain, Churning Butter, Cutting Hay and Stalks, Shelling Corn, Grinding Apples, &c. The angle of elevation necessary to operate this Power is never greater, but often less than one and a half inches to the foot, with horses weighing 1000 pounds each, and without any harness.

THE TWO HORSE POWER THRESHER AND SEPARATOR is capable, with three or four men, of threshing from 150 to 200 bushels of wheat or rye, and the one Horse Power from 60 to 100 bush., or double that quantity of oats per day.

THE OVERSHOT THRESHER AND VIBRATING SEPARATORS, with Improvements, have been sold with like success as the Powers. They admit of a level feeding table, thus avoiding accidents, (which often occur with the inclined feeding board,) by preventing hard substances, sticks and stones, from getting into the machine and breaking spikes, endangering those engaged with them. The grain, by this motion, is thrown on the floor within three feet of the machine, and admits a Separator to be attached sufficiently high to allow the grain and fine chaff to fall through it, while the straw is thrown off without being cut, and in fit condition for binding.

During the past two years, nearly two thousand sets of these Improved Powers, with Threshers, have been sold; and, without exception, they have given uniform satisfaction, none having been returned, notwithstanding the warranty is broad and liberal.

The above Power is offered to the public, upon its own merits, with a full warranty as to workmanship, materials and operation, (and with a guaranty of right of using in all parts of the United States,) subject to be returned within three months, and purchase money refunded.

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES.

Vol. I. ALBANY, MARCH, 1853. No. III.

Progress of Improvement.

CERTAIN characteristics have marked nearly every age of the world. The peculiarity of the present century, as every one knows, is rapid improvement in physical sciences and useful arts. Take the art of traveling as an instance—forty years ago, the same modes of locomotion were in use that existed in the days of Homer—horses, chariots, sailing vessels. Middle-aged men can remember when a three day's voyage in a sloop from New-York to Albany, was not regarded as slow traveling. The fleetest English mail coaches in 1825, did not exceed in swiftness the ancient chariot races at the Olympic games. Now, all at once, right under our own eyes, an invention has sprung up and been perfected, which will carry a thousand people across the face of the country, and leave the chasing tempest behind. About ten thousand miles of railway have been made in the United States, and more than this in Europe. About three thousand steamboats are plowing American waters.

If some Rip Van Winkle of the days of young George the Third, could have slept an eighty years nap, and opened his eyes in these first weeks of 1853, he would have seen wonders all about him, which had they been predicted at that time, would have stamped any one with the wildest insanity. He would behold vessels of enormous size, and without sail or oar, stemming the tide of our largest rivers, or sweeping under bare poles the face of the ocean; huge carriages, holding sixty men each, thundering through all parts of the world with the swiftness of eagles; bridges, hung on wires, spanning mighty chasms, and vast rivers; men, a thousand miles apart, holding familiar converse with each other, as if face to face; artists, painting with the flash of sunbeams; newsmen, writing with the lighting; and, not contented with his ordinary range on the surface of the earth, man rising on wings of hydrogen and riding on the wind or soaring through the clouds.

These bold and surprising results are scarcely more remarkable than other equally useful and less obtrusive inventions. The cotton-mill laborer has gained two hundred fold in the amount of goods produced; explorations in mining are reduced to great precision through geology; the engineer knows the exact strength of his structure before the first stone or timber is laid; cumbersome oil-lamps for lighting cities have been wholly displaced by the clear dazzling flame of a stream of gas; printing-presses throw off ten thousand copies an hour; huge steam engines, working with their hundred arms through vast factories, perform by their perpetual throb, the labor of thousands of men.

These wonderful improvements, which in the space of half a century have wrought such a mighty change on one-half of the surface of this old earth, and which have been effected chiefly through the triumphs of science, have very naturally led many to suppose that improvements equally astonishing might be made in the great art of agriculture, if science were only applied to this as it has been to other arts. Beautiful theories have been erected; minute directions have been framed in the laboratory and in the closet, which farmers were to follow out, with confident expectations of golden results, and a great revolution was thought to be very closely at hand. But these theories, and these directions, although claiming the most eminent chemists as their originators and endorsers, when subjected to practice, were found to be utter failures, and the beautiful promises which went before them, proved as delusive as the flattering mirage to the fainting traveler. Such things, it must be confessed, are not a little disheartening; but they were the natural results of superficial reasoning. The great laboratory of nature, where months are required to effect chemical changes, and where these changes are constantly influenced, arrested, and even reversed, by fluctuations in temperature, moisture, and by many other causes, all in the open air, where substances, slowly and imperceptibly evolved, are gradually dissipated unseen, and many of which are beyond the reach of the most powerful microscopes—this great laboratory is totally unlike the chemist's artificial laboratory, where changes are generally wrought in a few minutes or even seconds, and where scales, test-glasses, and receivers preserve and measure everything with the utmost precision, and controlling influences are entirely at the operator's command. It is no wonder, therefore, that even chemists themselves should greatly differ on the action of single substances upon plants, as they have done, for example in the case of lime and of gypsum, in the latter of which about a dozen different theories have been presented to the world.

Notwithstanding these difficulties, science is constantly offering to aid the most valuable suggestions, and serves as a guiding light to accurate experiment. It is in this way alone that its triumphs are to be effected, although not with that rapid and brilliant progress that has distingushed the mechanic arts. The great obstructing cause, at the present moment, in the way of scientific agriculture, is looseness and inaccuracy in experiment. Very precise theories are applied without any precision whatever in practice. For example, the absorption of ammonia by the soil from rain, dew, and snow-water, is over and over again urged upon the attention of cultivators, as an eminent source of fertility; but the ordinary average *amount* of ammonia contained in rain or dew, absorbed by the soil, and appropriated by plants, has never been communicated to the practical farmer, and he has no means of guessing whether it may be equal to a ton or only a pound of good horse manure per acre. Stirring the soil is said to promote the absorption of the elements of fertility from the atmosphere; and again, stirring the soil, (as in a summer fallow) is said to promote the evaporation of the elements from the soil. Are both correct? and if so, how can the farmer ever ascertain on which side the balance lies, unless the quantity absorbed, and the quantity escaping, are both determined? We might give many other examples showing the little value of practical reasoning, or even of ascertained facts, without the determinations of *quantities*.

There is no doubt that the practice of agriculture is destined yet to outstrip everything known at present, but it will not be through any long and sudden strides. It has already, in the last fifty years, doubled the effective results of labor, by improvements in mechanical means and chemical influences. Plows, cultivators, sub-soilers, sowing machines, horse rakes, reapers, threshing machines; draining, pulverization, management of manures, systems of tillage, rotation, improvements in seeds, improvements in animals—all have placed the farmer on a very different footing from that of the close of the last century. What will fifty years more disclose? This is a most interesting question, and must be answered very much in accordance with the labor intelligently expended in accurate trials of the promptings of theory; and to this we wish to invite the attention of all who have public spirit, enterprise, and knowledge, to induce them to undertake the task.

An Agricultural College.

By degrees, the idea that farmers' sons need a peculiar education to fit them properly for the duties and labors of an agricultural life, has been gaining ground. There has, hitherto, been just light enough on the subject of improved and scientific farming, to make the darkness visible; and calls for some institution, where the theory and practice of agriculture should be thoroughly taught, have been loud and frequent. Not a few plans have been presented to the public through the press, and urged upon the Legislatures of our states, in the shape of bills of incorporation, praying for large appropriations; but none of them have seemed to satisfy even a majority of farmers themselves, or to answer the purposes of such an institution. As a general thing, these bills have contemplated the expenditure of a large sum of money in the erection of buildings, the purchase of a model farm and the stocking it, the salaries of an indefinite number of teachers and professors, and large provision for the support of students. The projectors have failed to make equally evident the practical results of the plan proposed, and have been betrayed into a detail as cumbersome as it is unnecessary. There has been a seeming desire to found an institution to rival all similar ones in the world, rather than to adopt a system, which, by its simplicity and inexpensiveness, would recommend itself to the good sense and sound judgment of the age. These efforts, inasmuch as they have been unsuccessful, have thrown odium upon the name of an agricultural college, and awakened a distrust in many minds whether any such thing is practicable.

We believe there is a more simple and feasible way of securing the benefits of such instruction as the agriculturist needs,—a way perfectly consonant with the present system of education, and which would soon place agriculture on its proper footing as a science and an art. It requires only a glance to see that the farmer needs a course of study in many respects different from the one usually pursued at our academies and colleges, and that this course should be fundamental and thorough. It is for this reason that the agricultural college should be a distinct organization, and devoted exclusively to branches of study which have immediately to do with the profession of agriculture. The importance of separate institutions for the advancement of any science or art, is very generally acknowledged. The divine, the lawyer, and the physician, all go from a preparatory course of study in the academy or college, to one specially organized for the purpose of teaching the profession they are to follow. A Normal School is considered necessary to fit teachers for the proper discharge of their duties, and government claims the right to educate students for the United States service, in its own way. It is a rule, without an exception, that an education should have as direct a bearing as possible on the course of life for which the student is destined. The more the student can learn, the better; but if, with all his knowledge, he fails to secure that which he most requires, his education has failed of its end. In order to the successful prosecution of the study of the sciences connected with agriculture, there is requisite some previous study, and the better disciplined and more developed the mind is before entering upon the studies of an agricultural college, the greater will be the benefit to be derived from the course. At least the student should have a good elementary education, have acquired habits of thought and application, and be of sufficient age to have some settled purpose in life, in order to enter upon the study of agriculture with profit.

The need of an agricultural college, distinct from any other, will be more apparent when we consider the essential elements of an agricultural education. In a classical education, the text book is the main thing. Its object is to give the student discipline and mental furniture, and then he is left to apply his acquired power in any direction he pleases. Not so with an agricultural education. Theory and practice, knowledge and its immediate application, thinking and working, are inseparably connected. The institution that should propose to teach agriculture by lectures and text-books only, would go a begging for popular favor. An agricultural college without a farm, would be very like an observatory without astronomical instruments, or a medical college without physiological plates, skeletons, and specimens of prepared anatomy. Everything should be taught in its practical bearing, every principle should be illustrated by the facts which go to establish it, and the lecture-room and the work-shop, the student's room and the field, should not be a Sabbath-day's journey apart. The agricultural college, which should educate the mind, and neglect physical education, would only half do its proper work, if so much. The phenomena of vegetable growth and their rationale, the reasons for all the details of farm labor, the necessity for thorough tillage and draining, the kind of manure a given soil requires and why, the philosophy of a rotation of crops, the structure and composition of soils, and the system of farm economy and farm management, are among the most important subjects, which should be combined in a course of study. It would be necessary to use text-books on vegetable Physiology, Geology, Chemistry, Botany and Entomology, but the system of teaching should be as simple and familiar as possible, illustrating, at every step, principles, by reference to farm practice.

In settling upon the leading studies in an education of this sort, it may not be amiss to observe, that there has been an undue importance attached to the agricultural chemistry, technically so called, which bases scientific agriculture upon an analysis of the soil. The views of Prof. NORTON, on this subject, so nearly accord with our own, that we quote from his address, before the last annual meeting of the New-York State Ag. Society:

> "I say to you frankly, that when you meet with a man who pronounces with entire confidence upon every theoretical point, who reads his analysis of your soil or plant, as you would read a book, *distrust* that man; for he is either intentionally imposing upon you, or he thinks he knows what he *does not*. I am a firm believer in the efficacy of soil analyses, but at the same time must acknowledge that our information in this department is still far short of what it should be. My own opinions upon their results, are always given with hesitation and with qualifications, and each year makes me more cautious instead of bolder, more inclined to believe that our reading of nature's law is still imperfect.
>
> There are at this moment some of the most celebrated European chemists, who argue that our present system of soil analyses is founded upon wrong principles, and is almost worthless. Their views may be successfully opposed by the results of practice alone, yet the very fact of their being entertained in such quarters, shows that there is much of obscurity and uncertainty yet hanging about the subject."

No one would rejoice more than ourselves, were all that sticklers for soil analysis claim, strictly true. It would be pleasant, certainly, to take a sample of one's soil to town to-day, and in a week's time to quietly put a statement of its deficiencies in one side-pocket, while the requisite manure might be stowed away in the other. If such results were possible, we should say by all means let us understand chemistry—let us learn to analyse our own soils, whether it require two years or ten to master the mysteries of the laboratory. But we have the best of authority for saying that the law and gospel of correct farming do not hang exclusively or mainly on this principle of analysis. It is one among the many branches of science, which it is the province of the student of agriculture to investigate, but we can conceive of a thorough, scientific farmer, who could not tell in the twinkling of an eye, or to the thousandth decimal, what was the exact composition of his soil.

The idea to be kept prominent in maturing a definite plan of an agricultural college, is, that it should be as simple and inexpensive aspossible, taking into consideration the absolute requisites of an institution, whose primary aim is to teach the principles and practice of agriculture. It is of the greatest importance to adapt it so precisely to the confessed wants of farmers, that it shall combine every thing essential, and have nothing superfluous. We hope to show that the essentials of an agricultural college are quite limited, and can be secured without a great outlay.

First, there is requisite a farm of moderate extent, buildings for the accommodation of from thirty to fifty students, and an apparatus for the illustration of the different branches of natural science. The course of study may be divided into four departments, as follows:—

1. PRACTICAL AGRICULTURE.—Instruction in this department, should embrace the whole routine of farm culture, management and economy,—be elementary, accurate, and such as to lead the student to correct habits of thought and careful observation. The Professor, who would be in fact President of the College, and have the general direction of the farm, should, by all means, be a practical agriculturist, familiar with the every day business of the farm, and have the ability to communicate readily with the young mind, and lead it by easy stages to the comprehension of the more profound laws of nature. The use of text books in this department must be necessarily limited, and the system of instruction should be colloquial as far as practicable, making it always a main point to illustrate every principle by direct reference to some practical operation on the farm. The practice of requiring each student to lecture upon a given subject to the class, after which he is criticised by his fellows and the professor, which has been practiced in agricultural schools on the Continent, is worthy of adoption. A certain number of students should be required by rotation to

assist on the farm, under the immediate supervision of the instructor. The necessity for manual labor will be apparent, without argument; for the college is for working farmers, men who need the bone and sinew of physical strength, as well as the acumen and activity of intellectual power. In connection with this department, there should be a smith's and carpenter's shop, where the students can familiarize themselves with the use of tools, and, if mechanically inclined, learn to manufacture, alter or repair their farm implements. In short, the college should be furnished with all the conveniences and appurtenances of a well appointed farm-establishment.

2. Natural Science.—The department of natural science, is quite intimately connected with the other, and it should be taught with special reference to its bearing upon agriculture. A training in the fundamental principles of Chemistry, Geology, Botany and Entomology, would be necessary, but the mode of instruction should resemble the one detailed above. It has been said that such a course of tuition is superficial, but without just grounds. The student of Chemistry, however well drilled in his text book, must go into the laboratory before he becomes a chemist—the student of Geology and Botany must go out in search of the facts which uphold his principles, and see their application, before he can lay any claim to being an adept in the sciences. It is at this point, that so much of what is termed education, fails; and we insist upon this system of teaching as the only one fitted to the purposes of an agricultural college.

During the summer months, these two departments would be all the institution would require, but in the winter and early spring months, when there is little opportunity for practical labor and observation, instruction should be given in Mathematics, Veterinary Surgery, and Pathology.

3. Theoretic and Practical Mathematics.—As a means of discipline, theoretic mathematics stand foremost, and if the student is not already well acquainted with the principles of the higher branches, time cannot be spent more profitably than in acquiring a thorough knowledge of them. It should be borne in mind, that the student is supposed to have mastered the primary mathematics in his academical course. It is also highly desirable, that the farmer should know enough of practical surveying, to come to a correct estimate of his own farm, enough of civil engineering to lay a drain scientifically, and enough of mechanics to understand the working of his implements and the relative power of machines. The method of teaching in this department should, we think, be somewhat different from the one usually adopted in our academies and colleges, and made more simple and practical. The knowledge and experience of a thorough mathematician, would suggest means for accomplishing this.

4. Veterinary Surgery and Pathology.—The importance of instruction in this department is too much a matter of every-day experience to demand explanation. Lectures on animal physiology and anatomy, illustrated by skeletons of the domestic animals, and giving a synopsis of the diseases to which they are subject, with the best modes of treatment, are quite indispensable to such an institution.

In the winter term, courses of lectures in the first two departments should be given, embracing a systematic review of the subjects pursued in the summer term, which, with the last named departments, should be made accessible to those who have not the time or the means to avail themselves of the entire course of study, by the payment of a small sum for each course of lectures. This would at once furnish the popular element in the college, and make its influence more universally felt. It would open the institution to a large class of young men, who are under the necessity of laboring during the summer, and who could gather here in the winter to their great advantage.

With regard to the means of carrying such an institution into immediate operation, and the expense attending it, the following plan and estimate are suggested as feasible and within bounds. Let the Legislature grant an act of incorporation to certain individuals, and endow the institution with a sum not to exceed $30,000, to be paid when an equal sum should be raised and invested permanently by the corporation of the college. Allow the farm, with the necessary buildings, implements, stock, &c., to cost $30,000; a library, apparatus, &c., for a commencement, $5,000; then invest the remaining $25,000 as a fund, which at 6 per cent interest would yield an income of $1,500, which might be applied to the salaries of professors, or otherwise to the purposes of the college. The farm, with prudent management, would more than pay the expense of carrying it on, and ought to afford profit enough to pay the salary of the President. This income, with the funds derived from the tuition of students, would place the institution above embarrassment, and secure its permanence. If there are not friends of an agricultural college sufficiently interested in the plan, and sufficiently convinced of its availablity to furnish the $30,000, we may safely conclude that the time for founding such a college has not yet come.

Having thus briefly sketched the outline of a course of study, which can be modified by those who have the college in charge, and the means of carrying it into effect, we ask, have we not a plan which is at once comparatively simple and inexpensive, and positively effective and useful? We will not say that everything desirable is comprised in the sketch, but it is a working model of a system which can be enlarged and rendered more complete, as the wants of farmers require it. It would demonstrate the principle which we assume at the outset, that an education of the right stamp is essential to the progress and perfection of a complete and rational practice of agriculture. The practical effects of such an institution might be slow, but they would of necessity be sure; for a man that begins right—begins at the foundation, and goes on rationally, systematically and understandingly, must be making constant progress. The endowment of it would, in a certain sense, give farming a dignity it has not now; it would say that agriculture has its science as well as its literature and art, and that the cultivators of the soil are entitled to the rank of educated men, and the honors and emoluments of a cultivated mind. It would give farmers' minds an impulse in the right direction, and stimulate them to a higher ambition than the mere digging for pecuniary profit. It would engraft upon a healthy, well-rooted stock, the scion of Improved American Agriculture, which would, in consequence, bear fruit more abundant, more worthy the rich, free soil in which it is planted, and the sturdy, independent character which belongs by right to the American farmer.

Use of Lime as Manure.

In compliance with the request of Cyrus Ingalls, of Dobbs' Ferry, N. Y., we furnish a few practical remarks on the use of lime

To apply evenly, it must be in a state of powder. It is usually rendered so by slacking with water, taking care to use only enough to reduce it, without moistening it into adhesive lumps. Authorities differ as to the importance of applying caustic lime, some believing it much better for using when fresh, and others regarding air-slacked lime, powdered marl, and ground limestone, as equally beneficial. We have not experiments sufficient to enable us to decide this point. The probability is the difference is not great, as the most caustic lime soon becomes saturated with carbonic acid.

The quantity per acre varies from 25 to 300 bushels. On land which has been long cultivated, and which contains but little organic matter, it must be applied very sparingly; while on new or newly worked land, and especially on peaty soils, or those which abound with decayed vegetable matter, it may be used in much larger quantities. On wet or water-soaked soils, it can be of no value—the land must be well drained. It is generally believed to lessen the adhesive nature of clayey soils, and to increase the firmness of light ones.

After having been reduced to powder, it is to be spread evenly over the surface, and then thoroughly intermixed. The best way is first to harrow the ground well, as soon as the lime is spread, and then to turn under this pulverized surface, a few inches by means of a gang-plow. It should not be plowed in very deeply. For spring crops, it may be applied in spring; for wheat, early in autumn. The season of the year for its application is not however a matter of very great importance, as its effects remain several years.

Lands which have been long and repeatedly limed, are frequently found to receive no benefit from its application. In such cases, peat or yard manures will be found of great advantage. In no case, indeed, is a permanent benefit to be expected, without the accompanying use of yard manure.

Cuthbert W. Johnson found an excellent result from the use of lime in a compost, made by mixing thoroughly the lime with about twenty times its bulk of ditch-scrapings, old banks or pond mud. Applied at the rate of 20 or 25 cubic yards per acre, he found this compost to increase by one-third, the products of natural soil. Whether it would do so generally, can be only determined by trial.

Culture of Potatoes.

Mr. Phineas Pratt, of Deep River, Ct., informs us that, after some thirty years experience and close observation, he has come to the conclusion that the potato rot is caused by an undue absorbtion of moisture by the balls, before they are fully ripe. The increase of the disease, of late years, is owing to a change in the nature of the plant, caused by excessive culture.

Whatever opinions may be entertained with regard to the correctness of this conclusion, the following preventives, as given by Mr. Pratt, are undoubtedly good.

1. Procure good seed; be sure that the grower of them had no rotten potatoes. If yard manure is used, plow it in deep.

2. If the land is wet and springy, drain it, and arrange the rows in such a way the surplus water will run off. If there is a gravelly or clay sub-soil near the surface, use the sub-soil plow, and in most cases your crop will be doubled besides preventing the rot. In a level, retentive soil, let the furrows between the rows be lower than where the potatoe lies. Straw, stubble, tan bark, leaves, peat, are all good in the hill. Without them the soil must be in good heart to grow potatoes well.

Potatoes are not much injured from water when fully ripe; the Mercers, however, most of any.

The Osier Willow—Its Cultivation, &c.

BY C. N. BEMENT.

Having frequently been applied to by letter, for information in regard to the cultivation of the basket willow, and knowing your desire to lay before your readers such information as is best calculated to benefit the farmers. I take the liberty of addressing to the readers of the Country Gentleman, such information as I possess on the subject.

"From the best information I can obtain," says W C. Haynes. in Hunt's Merchants' Magazine, "there are from four to five millions of dollars worth of willows annually imported into this country, from France and Germany. The price ranges from $100 to $130 per ton weight. The quantity imported may appear large, and yet it is not sufficient for the consumption. In view of this importation, and the large sum expended for willows, would it not be well for our farmers and land-holders to give a little attention to this subject."

"The people of England," says the same writer, "until the year 1808, relied entirely for their supply upon continental Europe. Their supply was cut off by the breaking out of the war between Great Britain and France, so that after that period they were compelled to rely upon their own crops; and many associations in England offered large premiums on the best production of the willow."

The late Duke of Bedford, one of the best farmers of that day, gave much attention to the subject, which is vigorously prosecuted by his son, the present duke.

There are thousands of acres of land in this country, which in their present state are entirely useless, yielding little or nothing to the owners, which might, with very little expense, be planted with willow, and would yield a great profit. From my own experience, I am fully convinced that the willow may be grown profitably in this country, for less than fifty dollars per ton weight.

For several years previous to my leaving Three Hills Farm, I cultivated a small patch of Osier Willow, for the purpose of binding my corn stalks, in place of straw, and for making baskets for the use of the farm. The patch consisted of four rows, each fifty feet long. My attention was first directed to a more extended cultivation, from the fact of an offer made me by a German basket maker, of one dollar and fifty cents for the cuttings of the four rows of one year's growth. I refused the offer, for the purpose of using them to set out a new and more extended plantation. The following spring the same German paid me four dollars for the cuttings of the four rows; and the spring after I sold them for nine dollars.

Accordingly, in the spring of 1845, I caused an acre and a quarter of a rather moist soil, too wet for the finer grasses, to be carefully turned over with the plow, and then thoroughly harrowed. It was then laid out in rows three feet apart, and set with cuttings of willow about eight inches long, one foot asunder in the rows. It took about 12,000 cuttings, some of which were quite small, which rendered the growth the first year quite diminutive. The growth of the sprouts the second year varied from three to five feet high. I sold the second year for $20; the third year for $40; the fourth year for $60, which in reality was only about half their value.

The Osier, like all the willows, delights in a moist soil, and they are usually cultivated in such situations, and often form the outside boundary of wet meadows, being planted along the ditches that are made to drain off the surplus waters. Thus they occupy space of little value, but well calculated to make them a great profit, by their abundant shoots. It is a matter of astonishment when such quantities of articles of this description are annually imported, that Americans, proverbial for their industry, zeal, and independent spirit, should have thus long neglected to form plantations fully adequate to meet the demand.

The Osier differs from other willows, in its long, straight, flexible and tough twigs, or sprouts. The species most esteemed by basket makers, is the *Salix Verminalis*, or *European Green Willow*. It is of quick growth, and the shoots grow amazingly long and strong in one year from the shoots, which characteristic renders it very useful for basket making. The leaves are long and narrow, of a bluish green on the upper, and hoary on the under surface. This is the variety I cultivated, and of all others is best calculated for baskets and covering bottles, &c. An acre of this, properly planted upon suitable soil, will yield, at the least calculation, from one and a half to two tons weight to the acre.

Mr. Haynes says, in his communication, that from two acres the net proceeds, after paying all expenses, was $333.75.

The Osier Willow is worthy a place on every farm, because it takes up but little room, and flourishes best on ground too wet for general cultivation; requires very little care after the second year, and furnishes the best materials for baskets, which are indispensible on every farm. It forms a hardy and useful hedge for excluding boisterous winds, and as it flourishes best in moist soils, or wet situations—is frequently planted with a view to prevent banks of rivers and dams from being washed away by the force of the currents.

The art of fabricating baskets from them for farm purposes, is easily acquired by any ordinary hand, and may be practiced in evenings and stormy days in the winter, with little or trifling expense. A well made basket of this willow is actually worth three or four made of ash splints. To give them firmness and durability, a good rim, ribs, and handle of oak, hickory, or other subsantial wood, are necessary.

To conclude, I would beg leave to say, I have no cuttings for sale myself, nor am I in any way concerned in the sale of them, but refer to A. L. Jordan, Esq., New-York; John Boveridge, Esq., and Dr. Charles W. Grant, of Newburgh, and Martin J. Blessing, Three Hills Farm, near Albany. *Albany, Jan.* 24, 1853.

A full answer to the inquiries of Mr. Wynkoop, respecting the culture of the Osier Willow, would require a lengthy article. Loudon's Arboretum gives a very full description of the mode of culture. To answer him briefly, I would say: A wet soil is most suitable, but it must be drained. His overflowed meadow, (I have tried it,) will not answer at all. They must be cut in the fall always, and planted in the months of November, March, or April; 10,000 to 14,000 cuttings plant an acre. The cuttings are one foot long, and merely stuck nine inches in the ground. His Irishman's story is rather tall; my best shoots this year are nine feet. The profits of the culture are very great, the cultivation easy, and the demand increasing. I sold the willow, on one-fourth of an acre, for five years, doing nothing to them, for forty dollars a year, and made a bad bargain. I will be happy to answer any further inquiries from any of your correspondents, and can furnish some cuttings in March, or whenever the snow disappears, at five dollars per thousand. W. H. Denning. *Fishkill Landing, N. Y., Jan.* 17, 1853.

* * *

Pigeon Weed—Draining.

Mr. Tucker—I wrote you some two years ago, that I thought I had made a discovery whereby pigeon weed, or red root, could be exterminated from the earth, viz: by planting corn two seasons in succession on the same field. I have followed up the plan, and find it to answer the purpose effectually. You can tell my brother farmers, that they can get rid of that pest of the wheat grower, by following my plan. If they don't, let us hear of it through your paper; but I know it will answer; yet strange as it may appear, no other two summer crops will kill it all. I have tried both barley and oats twice in succession, but Indian corn and potatoes will; but the latter crop would not answer to cultivate extensively on our stiff soils, but the former will.

A word or two about draining. A year ago last fall, I drained some three acres of wet swale; planted an acre of it with potatoes last May. They were a great crop, and not a potatoe rotted. I was in feeble health when taken up, and was not in the field then, but on observing to one of my men the other day, that from the number of *pits*, they must have been a great crop; he then told me he measured 20 rods, then dug the potatoes and measured, and got 50 bushels, good measure. I have 45 acres of wheat growing on land I drained the last two years. I think it will be a very great crop. If health allow, I will drain 25 acres next spring, which I think will be the last of my draining. I have now all of 25 miles of drains. My son-in-law, Mr. Swan, who owns 340 acres of the Rose Hill farm adjoining mine, laid last year, (1852) 72,400 tile, making 17 miles of drains, which has already improved the appearance of the land very much. He had laid in 1851, 16,000 tiles, and has now drained about 200 acres of his farm in a thorough manner. Many commenced draining last year. In fact the whole country ought to be drained. No man can believe how much good it does, unless thoroughly tested. I showed a neighbor the potatoe *pits* on my potatoe patch. He said it was wonderful. He had known the place for 40 years, and it was nothing but a *pond hole* until I drained it. He is now making preparations for draining in spring. Yours truly, JOHN JOHNSTON. *Geneva, N. Y., Jan.*, 1853.

The Way to get a Team for Sub-soiling.

There are scores of farmers, who occupy small farms, who are well satisfied of the great benefits of sub-soiling, but who plead the impracticability of it, because they have not team enough. It is true, sub-soiling may be done by a single team by by shifting plows at each round; but this is rather a slow way of reporting progress. There are but few farmers who feel able to keep more than one team, on a farm of forty or fifty acres—because one span of good horses will be able to do all the work on such a farm, and stand idle nearly one half the time. And if two teams are kept, too much of the profits of the farm will necessarily be consumed in feeding them. But how are we going to manage to plow *deep*, or sub-soil, and make it profitable. By keeping an extra team, the extra profits are nearly or quite used up in maintaining them, and therefore, why is it not just as well to dispense with one team, and be satisfied with plowing as deep as possible with a single team.

If adjoining owners could manage so as to unite their single teams, the difficulty would be obviated; but this is not always practicable—for, when the season of plowing has arrived, each one is anxious to have his plowing done in season, and is seldom willing to leave his ground unprepared for a crop and go and help a neighbor—running the risk of getting the crops in in season, in consequence of too much wet weather.

These are some of the difficulties that I met with when I commenced farming operations. I found it impracticable to *hire* a team, just when my ground was in a suitable condition to plow; and keeping an extra team for plowing only a few acres, appeared to involve too much expense for the revenue of a small farm. In this dilemma I resolved to test the practicability of another expedient. I knew about how much plowing I should have to do in a certain season; and it is easy to estimate the cost of keeping a good yoke of oxen. Accordingly, I purchased a yoke of oxen, and with them and a span of horses, was able to drive a plow as deep as was desirable at present. During the season the oxen helped plow about fourteen acres, for which credit was given; and for their hay, pasture, grain consumed in fattening, interest on the purchase money, from the time they were purchased till sold, a cash charge was made. (The manure offset against the expense of feeding and other care.) They were purchased in May, for $85, an extra price—and sold for beef in the following January, (the price of beef being low,) for $114.10. Upon an estimate, I found that I had received for the corn meal which they consumed, about 75 cents per per bushel, and 38 cents per week, for each, for their pasture, and at the rate of six dollars per ton for their hay, which are very remunerating prices with us.

After they were sold I began to look around for another yoke of cattle. As soon as I found one which suited in every desirable respect, especially in price, they were purchased, and immediately given one or two quarts of grain per day, until such times as was thought best to fit them as soon as possible for the butcher. During the season of plowing they receive extra feeding—and if they are good beef, working moderately half a day at once, will not work off any perceptible amount of fat. By this system of management, I am able to plow with a double team all that is desirable; and when my oxen are not at work, they are improving in flesh—and instead of incurring a bill of useless expense, they are a source of profit.

In this experiment I have availed myself of some facts and suggestions which may be of some practical utility to others who may be similarly situated. And in the first place, beware of purchasing a yoke of old, poor, over-heat, worn-out, badly strained, mammoth skeletons—for *their teeth are poor*, and they cannot masticate their food, and of course, they will not be able to extract the nutriment from the grain which they consume. Another thing, they are generally a disagreeable team, on account of their intolerable slowness. Their inability to endure the heat of an ordinary hot day, in spring or summer, is another valid objection to them; and what is *most* objectionable, they can seldom be made as *fleshy* as younger cattle, although fed with twice the amount of feed. And, if the price of younger cattle be paid for them, my word for it, the purchaser will lose money. Another thing of no little importance is, such old lubber-like fellows are too frequently *unruly*—and *an unruly ox, who can bear!* My aim is, to purchase young, thrifty cattle, of fair proportion; and such cattle, with good treatment, will almost always be ready for the shambles Truly yours, S. EDWARDS TODD. *Lake Ridge, Tompkins co., N. Y.*

Reapers in Scotland—Results of Trials.

The *North British Agriculturist* contains the statements of a large number of farmers in the north, giving the results of their experiments with the new reaping machines, and which contain much information of value; and they are the more interesting, because the experiments were all made by those not accustomed to the use of reaping machines, thus affording a fair test of their general adaptation under the care of workmen of ordinary skill.

The reports are not by any means very flattering, at the same time that the most argue that with some improvement, the reapers will become generally valuable. The kind used was Hussey's, manufactured by Garrett & Sons, and by Crosskill. Most of the reports give the amount reaped, at about one acre per hour, which required very strong teams, or relays of horses every two hours. One had reaped 12 acres in 10 hours; another 20 acres in $20\frac{1}{2}$ hours; another had cut an acre and a quarter per hour. while another still had succeeded in cutting only about half an acre per hour. This small quantity he ascribed to the awkwardness of the hands employed. Most of the trials speak of the same difficulty which we have observed in this country, namely: the necessity of driving faster than horses can work to advantage, requiring three horses to endure through the day. Some failures occurred where there was a rank undergrowth of grass, which choked the machine. Surface drains frequently rendered it difficult to cut well. About fifteen hands were commonly required for each machine, including driving, raking, binding, &c. The delivery of the cut grain behind instead of at the side, was regarded by several as a serious defect; one of the farmers who made the experiment, was of the opinion that the same number of binders could do nearly double the work, were they not compelled to spread themselves along each successive swath.

From an average of all the experiments reported, an estimate was made of the comparative cost of reaping with the sickle, cradle, and machine. Allowing for the laborers, horses, and wear and tear of machine, the difference was found to be very small in favor of the latter; the horses were, however, estimated at 10 shillings (about $2.50) per day, at a time when they have no other labor to perform. It ought to be mentioned that the experiments were mostly made on improved farms, where wheat was heavy, or some 30 or 40 bushels per acre. The cost of the reaping machines was about £18 each, or nearly one hundred dollars.

An advantage likely to result from the introduction of perfected reapers, is that the farmer will be enabled to cut larger crops exactly at the time he wishes, an advantage evidently of considerable importance, since the fact has been so well ascertained, that the quantity and quality of the crop is improved by cutting some ten days before wheat is dead ripe.

◆

Harvesting Corn.

Much has been written, and more said, upon the different modes of harvesting corn; and while each method has its strenuous advocates, neither, perhaps, has been sufficiently tested by accurate weight and measure, to satisfy many who are desirous of practicing the best way.

I have been in the habit for ten years, of cutting up and stooking a part of my corn, and top-dressing the rest. In a few instances have left some to ripen unmolested. My preference has been for topping—not because it was the way of the fathers, nor from any proof by weight or measure—for I never resorted to either, being satisfied with the general appearance of the topped grain, as it was brighter, firmer on the cob, riper, and in better condition to store away in the granary, than the rest.

Circumstances may render it necessary and advisable to secure the crop by cutting up and stooking. Seasons and localities should be regarded with particular attention by all tillers of the soil. Advantage may be gained by cutting in low situations, where there is danger of early frost; or if the farmer wishes to sow his field to winter grain, he can remove his corn in better season to sow his seed. But in favorable situations, simply to gather his corn crop, and save his fodder by cutting it up by the roots, when it is green and full of the juices, thus depriving it of the nourishment it would draw from the earth, does not appear to me to be the wisest and best course, or one in accordance with nature's laws.

I know it is claimed by the advocates of cutting up, that the juices of the stalks thus severed from their roots, continue to flow to the grain, as well or better than they do in the case of that which is topped. Now is this true? Does any one really believe, that in a plant like Indian corn, with deep expansive roots, there is a healthful flow of the juices enough to form and mature grain after being deprived of its nourishment? As well may they say the blood circulates freely in the amputated arm. In regard to corn that is topped, there is no injury to that part of the plant on which the grain is formed; no severing of the main arteries, or taking the life of the plant; but it continues to draw its proper nourishment from the earth until it matures.

In my view, we have more reason to believe that in removing the top stalks, we take away an exuberance, which in effect causes a greater flow of the juices to the grain, than that there is a healthful flow of the juices in that which is cut up. For the top having become first mature, commences decaying, and there is a continual drain to strengthen that decaying part—whereas, if the top is removed, all the nourishment still continues to flow freely to the grain.

It is gratifying to observe that a desire for information and investigation in this matter, is being elicited. And it is to be desired, that the call for experiments, in the July No. of the Cultivator, by H. W., of Ira, N. Y., may meet with a full and hearty response from farmers in all parts of the country—and compare notes, not of guess-work, but actual weight and measure—and that from time to time, until each experimenter is satisfied that the grain is thoroughly dried.

Well, Mr. Editor, I set down to give the result of an experiment made by myself, and it is hoped that what I have written will not lead any to think that my mind is too much biased to give each a fair trial. My desire is for facts—for correct information in the premises.

During the month of September, when my corn was in proper condition to top, (that is glazed, and the tassel becomes dry and beginning to curl,) I commenced topping my corn. On the 17th day I selected three successive rows, near the middle of my field, and counted off 20 hills in each, for experiment. The rows and hills were as near an equality as could be in appearance. The first row of 20 hills I cut and put in one stock; the second topped; the third left unmolested. All stood in the field until Oct. 27th, when each parcel was harvested and weighed. I would here say that the weather was quite favorable for either method, warm and dry.

20 hills, cut up Sept. 17, harvested and weighed Oct. 27; weight of ears, 29 lbs. 13 oz.

20 hills, topped Sept. 27, harvested and weighed Oct. 27; weight of ears, 34 lbs. 9 oz.

20 hills, untopped, harvested and weighed Oct. 27; weight of ears, 34 lbs. 15.

Each parcel kept in a warm room one month, then again weighed.

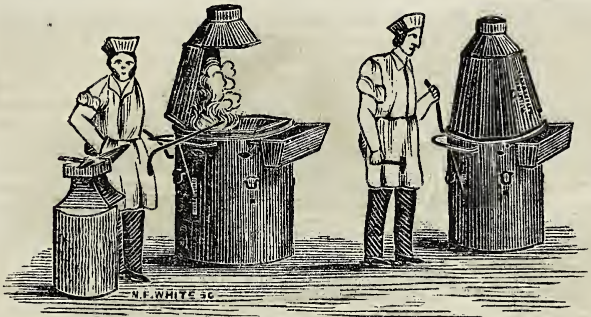
Nov. 27, 20 hills, cut up; 94 ears; weight 25 lbs. 8 oz.; shrinkage, 4 lbs. 5 oz.; per cent shrinkage, 14.48.

Nov. 27, 20 hills topped; 98 ears; weight 29 lbs. 12 oz.; shrinkage, 4 lbs. 13 oz.; per cent shrinkage, 13.92.

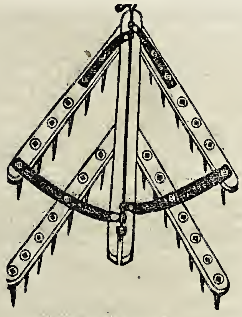
Nov. 27, 20 hills untopped; 100 ears; weight 29 lbs. 8 oz.; shrinkage 5 lbs. 7 oz.; per ct. shrinkage, 15.74.

Each lot shelled, weighed, and measured Nov. 29, resulting as follows:

Cut up, measured 11 qts. 1 pt.; weight 21 lbs. 2 oz.; weight of one peck, 14 lbs. 8 oz.



Portable Forge.



Geddes Harrow.

Topped, measured 14 qts.; weight 25 lbs.; weight of one peck, 14 lbs. 6 oz.

Untopped, measured 13 qts. 1 1-2 pt.; weight 24 lbs. 8 oz.; weight of one peck, 14 lbs. 8 oz.

Still kept in a warm room until Dec. 13th, when it appeared to be perfectly dry; each parcel was again weighed and measured:

Cut up, measured 10 qts. 1 1-2 pt.; shrinkage 1 1-2 pt.; weight, 20 lbs. 10 oz.; per cent shrinkage, 2.37

Topped, measured 12 qts. 1 1-2 pt.; shrinkage 2 1-2 pt.; weight, 24 lbs. 2 oz.; per cent shrinkage, 3.50.

Untopped, measured 12 qts. 1 pt.; shrinkage 2 1-2 pt; weight, 23 lbs. 4 oz.; per cent shrinkage, 5.10.

I exhibited the fodder to a number of good judges, and each that expressed an opinion, decided in favor of the topped; also the same gentlemen examined the corn, the day after it was harvested, and all gave their preference in favor of the general appearance of the corn that was topped. Samuel F. West. *Columbia, Conn., Dec.* 18, 1852.

◆

Portable Forge.

Among the many articles which were exhibited in "Mechanics' Hall," at the State Fair at Utica, we were particularly pleased with Hyde's Portable Forge, exhibited by L. Potter & Co., of Troy, and represented by the above figures. The bellows, in a very compact form, occupies the space underneath the fire, from which the curretn of wind is driven upward through an improved graduated Twier Iron, the slide damper of which regulates with great ease and precision, the amount of the blast. The folding doors, which are made to surround the fire whenever needed to protect it from wind or rain out of doors, or for safety within doors, are of very ingenious and neat construction, and are quickly applied. On a large farm, remote from a smith shop, such an article would often be of great convenience. We think it world also form an admirable furnace for a chemical laboratory.

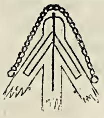
We observe that the graduating twier iron is highly commended by Eaton, Gilbert & Co., the celebrated rail car makers—as well as by several other persons.

◆

Improvement of the Geddes Harrow.

I have made an improvement (in the manner of drawing) the Geddes Harrow, which makes it a most valuable implement for the farm—whereas, by the mode in which all I have seen, are drawn by the center rod, it is very much injured in its usefulness. I introduced the implement into the county, having one made immediately after I saw the figure and statement in the Transactions of the State Agricultural Society. It was made as near like the figure and description as could be, at about double the cost of an ordinary harrow. You may judge how I felt when I found, after all that had been said in its favor, it was so defective when drawn by the center rod. I found that when so drawn, the center raised, and the outsides ran in too deep, and there was no play in its action—no accommodating itself to the inequalities of the ground, but one uniform action. The center raised so high that the central teeth scarcely touched, the outsides at the same time clogging.

After due examination I concluded to divide the weight, as nearly as might be, into three parts, and make two points of draft, leaving one-third the weight between these points. By so doing, I at once had a perfect implement, from that which before was quite deficient. As it now is regulated, I believe it will do more execution going twice over the land, than any other harrow I know of, will in three times.

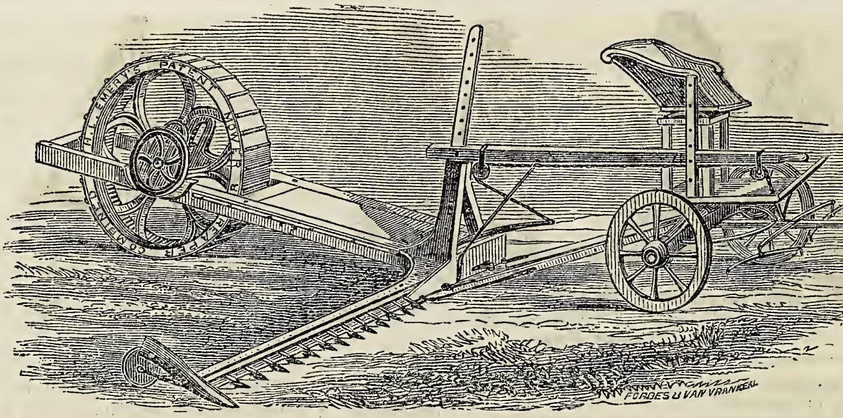


The cut represents the chain and mode of attachment to the harrow. It is done by taking a piece of chain, (having a ring exactly in the center,) and long enough when secured to the out side beams, to pass over the front of the harrow for convenience in handling. A screw bolt with an eye in it is secured to the last link of the chain at each end and passed through each outside beam and secured. It is but little trouble and expense, and will effect much good. Try it, you that have that kind of Harrow. Harmon B. Cropsy. *Richmond, Staten Island, Jan.* 23, 1853.

◆

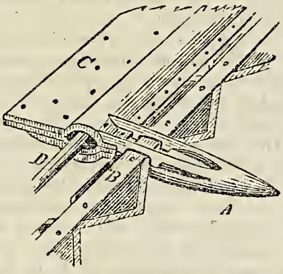
Emery's Mowing Machine.

The above cut illustrates the Emery Mowing machine—showing it as used with the wheels detached. Where grass is light, so as not to produce an excessive side draft, and fields small, so as to require a smaller machine, the wheels may be dispensed with, and a tongue substituted, thereby attaching the horses close up to the machine itself. This illustration of the Mower, together with the numercus illustrations of the same with attachments, &c., making it a reaper, and which


H. L. EMERY'S PATENT MOWER & REAPER COMBINED
FORBES & VAN VRANKEN

EMERY'S MOWER.

were published in a former number, gives a very full description of its general features and "modus operandi."



Below we give a more minute description of the cutters themselves—it being a transverse section of the compound wrought iron cutter beam, with section of cutter bar, cutters and dividers, and the relative position, size, &c., &c.

B—represents the cutter bar, to which the steel blades are attached on its under side; the bevel of the blades being upon their upper side and sickel edge. These blades also extend back of the cutter bar, with cutting angle and edges, same as before it, but not terminating in a point. This rear projection serves to cut and clean the "clog" or fibre, which may possibly escape the forward cut, and be drawn into the dividers.

D—represents a section of the crank axle which extends through the hollow beam, and supports its outer end.

C—represents the double plate hollow beam with attachments.

A—represents the divider with openings and guides, through which the cutters pass. This divider is made very true, and with sharp corners, over which the cutters pass, forming a perfect shears cutting action.

These dividers are wider than most others, leaving a space of about two inches between them, thus better protecting the cutters from injury from stones, also compressing the grass or grain into a more dense body, and better condition for the action of the cutters.

* * *

"We learn by suffering," says the poet, "what we teach in song."

The Culture of the Hop.—No. 2.

In my communication on the culture of hops, I should have said that about six hills of male hops, equally distributed, ought to be planted to each acre. The reason for this is, I trust, obvious to every one.

Hop Picking.—I come now to give you the mode of hop harvesting, as practiced here in Otsego. Hops are not considered ripe or fit to pick, until the seeds turn brown a little and become hard, or in other words, get quite out of the milky state. The flour or tallow of the hop, must also possess that peculiarly bright and sparkling gold color, which is always seen in good hops. As in this flour consists all, or nearly all, the virtue of the hop, it may readily be seen that it is important that it is well matured, (and this is easily ascertained by sight and feeling) as it cannot be improved in any respect after picking.

The time at which hops are fully matured and ready for picking, varies of course with the season. But generally, I think it would be about the middle of September. It is a common practice here, however, to begin on the first week in September, as those having large yards, would not otherwise get through until frosts would injure the crop, and cold and bad weather would retard picking. The time having arrived, and all hands being engaged for weeks or perhaps a year before, a merry time to all but the poor hop-grower and his family, now begins. One might suppose it would be difficult to obtain the necessary help at all times, and especially as all want it at the same time, in districts where so many hops are grown as in many parts of Otsego. But there is no lack of assistance in hop time, (as it is familiarly called.) I have often heard the remark, and experienced the truth of it myself, that forty girls could more easily be obtained to work in the yard, than one in the kitchen, or to nurse a poor sick woman. I will here remark, that our hops are all picked by females, many of whom spend weeks in preparatory making dresses, sacks, bonnets, gloves, &c., thinking nothing of time thus spent, if they can only have a good time in picking.

Our way of picking is in boxes; each box usually contains about forty cubic bushels. They are always divided into halves, and should invariably be subdivided into quarters, and this is the case where picking is done by the box or bushel. Then the amount picked, and the condition of the hops of each will show for themselves. One man and four girls, are a complete force for a box. The man, or tender as he is called, cuts the vines at the hill, takes up the pole, and places it on the *lug* with one end resting on the ground. The lug is a pole running lengthwise of the box, elevated about two and a half feet above it, and supported by uprights nailed at each end of the box. It is the business of the tender to keep his girls well supplied with hops; to see in general that each and all do their duty, and that his hops are kept clean and free from leaves and stems; to clear his poles from vines, and stack both poles and vines in a neat and workmanlike manner.

Girls pick by the week, box or bushel. The latter, (after trying both.) presents itself to me as altogether preferable. Then we pay those who earn their money, and those who do not surely ought not to have it. I have known girls paid by the week, and all the same price, while A. would accomplish double or tripple that of B. This is too unequal A smart girl will pick two quarter boxes, or twenty bushels per day. and even more, and at two cents per bushel, (the price usually paid) good wages can be made. Though many, in picking by the week, would not get more than one-fourth the above quantity. I am told they do not pay quite as high as this in Sangersfield, Madison, &c.

Once a day at least, or as often as the boxes are filled, they are emptied into large bags to be conveyed to the kiln for drying. In very warm weather, care should be taken that the hops do not settle or pack in the box, as they will soon heat and are liable to become injured. But when they are picked by the box, the tender is relieved from all responsibility of this kind, as the girls seem to understand the stirring up process, not allowing their hops to settle enough to heat.

I reserve for another article, some remarks on the most important part of this business—that of drying. An Otsego Hop-grower.

On the Culture of Indian Corn.

As a great part of my life has been spent in agricultural, horticultural and botanical pursuits, I hope I shall pe able to make some suggestions of value to American farmers, and to assist them in reforming some of the erroneous practices, which retard the progress of the profession.

I saw the Indian corn growing for the first time in this country in 1851 and '52, and immediately came to the conclusion that the present system of cultivating it ought to be abandoned. Upon analysing it botanically, I find that it bears staminate and pistillate flowers on the same plant; such plants belong to the 19th class *monœcia*. All farmers ought to know that the staminate flowers are the male, and grow on the top or panicle of the stalk, and that the pistillate flowers are the female. and grow on a cob. and form what is termed the silk. The male flowers contain a colored powder called pollen. and when it is ripe the anthers which enclose it burst, and the pollen falls on the female pistils, or silk, and its influence is transmitted along the silk to the cob, where the seed is to grow. But when the pollen falls, some goes off with the wind, some is lost on the ground, and some goes to fertilize the pistillates of other plants; so that if white and yellow corn are growing in the same field, both kinds will often appear on the same cob.

It is evident that a full supply of pollen, and a long cob, are requsite to a fine crop; and to secure this, I would advise farmers not to check the growth of the plant by cutting off its roots with plows and cultivators. When the plant is six inches or two feet high, it has roots of the same length, and by passing a plow between the rows, you are sure to injure the roots, and thus retard the growth of the stalk and the cob. and injure the pollen. The most obvious use of the root is to fix the plant in the soil, and maintain it in its proper position; but the most important use of it is that of absorbing from the soil that moisture and food, which the development of the plant actually requires; but the plowing interferes with both these functions It is the spongelets at the ends of the fibrils, that bring in the nourishment, which is conveyed by the tissues of the fibrils to the main root, and then distributed to all parts of the plant. These delicate roots are spread over the entire surface of the ground at no great depth; so that when you stir the ground to such a depth as a cultivator must necessarily do, you deprive the plant of its food, and check its growth.

My mode of growing corn is to spread manure broadcast; then plow the ground as deep as possible. and plant the seed, taking care not to cover it too deep The weeds must be kept down with a hoe, when they are young, and if the soil is in good condition, that is, well plowed, well manured, and well drained, the crop will be a good one. I have seen good land which was entirely useless, because it was not drained, on farms where stone is abundant, and if such farmers would build drains instead of plowing up their corn, they would labor to more advantage.

One acre of corn, cultivated in the following manner, came under my observation: The ground was plowed as deep as a team of oxen could do it. and thoroughly harrowed. The seed, which had been steeped in tobacco water, was then sowed in drills, and covered not more than an inch deep. The weeds were kept down with a hoe, and though the land had not been manured for years, and had never grown a good crop before, it produced 70 bushels of shelled corn, worth 75 cents a bushel, and 450 bunches of stalks, worth 4½ cents a bunch. There was very little hog corn. The cobs were from 9 to 13 inches in length, from 8 to 12 rows of corn on the cob, and from 50 to 70 kernels in a row. Had the corn been cultivated with a plow, the product would have been much less John Moore. *Poughkeepsie, N. Y.*

Milking in Winter.—Fresh cows come in towards the close of winter, and the teats often become badly cracked by exposure to the cold winds. This effect is increased by the contraction and drying of the varnish formed by the saliva of the calf. To prevent this difficulty, always wash the teats, before milking, with the hand, and after the sucking of the calf. It will dry during milking, and leave the udder clean and soft Cold water is much better than milk, which acts not unlike the calf's saliva. If the soreness is considerable, apply fresh unsalted butter.

Agricultural Societies.

United States Ag. Society.—The First Annual Meeting of this Society was held at Washington City on the 2d and 3d of February—Hon. M. P. Wilder, President, in the Chair, and W. S. King, Secretary. About 100 members were present, representing 19 States.

The President, in his address, states that an extensive correspondence has been opened with distinguished agriculturists and local associations, and suggests that a committee of the Society confer with the general government with reference to securing the co-operation of its functionaries in procuring information, and in the transfer of seeds and specimen products. He urges a closer alliance with kindred associations in all parts of the Union, and the importance of obtaining full reports of their transactions—also some alliance with the American Pomological Society. He enumerates the facilities for usefulness which the location of the Society affords; speaks of the need of some buildings, and more means for the accommodation and support of the organization, and suggests that the patronage of the government would be desirable, and that the officers of the Society might perform the duties of the Agricultural Department of the Patent Office. He advocates the full representation of our agricultural products at the World's Fair at New-York, under the direction of the Society. After alluding to some imperfections in the constitution of the body, the immense agricultural resources of our country, and the zeal which is being manifested in their development; the death of the "Farmers of Ashland and Marshfield," and that of the lamented Downing and Norton, in an eloquent strain, he closed his address with an entreaty to vigorous and harmonious action, for promoting the purposes of the Society, and rendering our nation "the most intelligent, enterprising, virtuous, happy, and powerful people on earth."

The Society convened on the morning of the 3d, when the various Committees made their reports. The Constitution was so amended as to change the time of holding the annual meeting to the *last* Wednesday of Feb.

The following were elected honorary members: President Fillmore, General Pierce, Samuel Appleton, Thomas H. Perkins, Robert G. Shaw, Edmund Ruffin.

The special order, a resolution to memoralize Congress to establish a Department of Agriculture, was taken up. Mr. Calvert supported it. It was due that this great interest embracing four-fifths of our population should be represented in the Cabinet councils. Messrs. French and Mapes briefly advocated the resolution, when it was adopted unanimously.

President Fillmore and Secretary Stuart now entered, and were received with marked attention, the members rising.

The Society then proceeded to ballot for officers, and the following were elected:

President—Marshall P. Wilder.

Vice-Presidents.

Ezekiel Holmes,	Maine.	Samuel Medary,	Ohio.
George W. Nesmith,	N. H.	Robert Mallory,	Ky.
Frederick Holbrook,	Vt.	Meredith P. Gentry,	Tenn.
B. V. French,	Mass.	Joseph A. Wright,	Ind.
Josiah Chapin,	R. I.	Stephen A. Douglas,	Ill.
S. D. Hubbard,	Conn.	R. Atchison,	Mo.
Henry Wager,	N. Y.	T. B. Flourney,	Ark.
James J. Mapes,	N. J.	J. C. Holmes,	Mich.
Frederick Watts,	Penn.	Simmons Baker,	Fla.
C. P. Holcomb,	Del.	Thomas J. Rusk,	Texas.
W. D. Bowie,	Md.	M. F. Colbaugh,	Iowa.
G. W. P. Custis,	Va.	A. C. Ingham,	Wis.
H. K. Burgwin,	N. C.	M. Horner,	Cal.
John Witherspoon,	S. C.	Joseph H. Bradley,	D. C.
P. M. Nightingale,	Ga.	J. M. Baird,	New Mexico.
Richard Jones,	Ala.	H. H. Sibley,	Minnesota.
A. H. Begnes,	Miss.	Joseph Lane,	Oregon.
A. B. Romar,	La.	Joseph S. Noyes,	Utah.

Exeutive Committee.—C. B. Calvert, John A. King, J. D. Weston, Moses Newell, Arthur Watts, Richard Peters. *Cor. Secretary*—J. C. G. Kennedy. *Rec. Secretary*—W. S. King. *Treasurer*—William Selden.

The Treasurer reported the funds of the Society had been augmented nearly $2,000 since his arrival yesterday. Dr. Elwyn presented a paper written by Prof. Booth, of Philadelphia, arguing that the analysis of *soils*, in the present state of chemistry, is of no immediate practical value to the farmer. Prof. Mapes said he stood ready to refute every position assumed in the paper, and stated interesting facts against it. After an animated discussion, the paper was withdrawn.

On motion of Mr. Poore, circulars were directed to be addressed to home and foreign agricultural societies, proposing the interchange of publications.

Annual Meeting of the N. Y. S. Ag. Society.

The Society convened in the Assembly Chamber, on Wednesday the 10th of Feb., at 12 o'clock, and was called to order by the Secretary, B. P. Johnson, on whose motion Ex-President Beekman was called to the chair,—the President, Mr. Wager, being necessarily absent on a visit to the South, for the benefit of his health.

After an opportunity had been afforded to those who desired it, to become members of the Society, the Secretary read the annual report of the Executive Committee, which was of great interest, and presented the condition of the Society in a high position of influence and efficiency.

The report of the Treasurer, Luther Tucker, showed the condition of the funds of the Society to be as follows:

Balance in treasury, Jan., 1852,		$4,544 14
Receipts from annual members,		157 00
" from six life members,		60 00
" at winter exhibition,		38 75
" from State Treasury,		700 00
' At State Fair,		8,115 41
" interest on funds invested,		412 06
" from temporary loans,		1,969 83
" Mohawk bonds redeemed,		3,000 00
Amount due Treasurer,		75 71
		$19,072 90
Paid Premiums,	$6.354 26	
Expenses of State Fair at Utica,	2,014 91	
County Surveys,	439 00	
Trial of Implements at Geneva,	733 08	
Library and Museum,	461 13	
Postage, &c.,	219 10	
Incidental expenses,	318 49	
Miscellaneous,	675 48	
Salaries and traveling expenses,	2,640 93	
Printing, &c.,	234 35	
Rochester Fair, 1851,	877 67	
Winter meeting 1852,	104 50	
Loan account,	4,000 00	
		$19,072 90

Mr. White of Monroe, moved the usual committee of three from each judicial district, to nominate officers, and to recommend a suitable place for holding the next State Fair. On motion of Mr. Allen of Erie, after considerable discussion, the resolution of Mr. White was so amended as to confine the duties of the committee to the nomination of officers.

At the evening session, Dr. Beekman not being present, James Monroe, Vice-President, of the first district, was called to the chair. The committee on nominations reported the following list of officers for 1853, who were unanimously elected:

President—LEWIS G. MORRIS, Westchester.

Vice Presidents.

1. Richard L. Allen, New-York.
2. William Kelly, Dutchess.
3. George Vail, Troy.
4. John B. Finlay, Saratoga.
5. George Geddes, Onondaga.
6. R. H. Van Rensselaer, Otsego.
7. Joel W. Bacon, Seneca.
8. Silas M. Burroughs, Orleans.

Additional Members of Executive Committee—Theodore C. Peters, Genesee; J. T. Blanchard, Saratoga; Wm. Buel, Monroe; Chas. Morrill, Tompkins, and John A. Sherman, Jefferson.

B. P. Johnson, Albany, Cor. Secretary.

Erastus Corning, Jr., Albany, Rec. Secretary.
B. B. Kirtland, Albany, Treasurer.

Mr. Corey of Saratoga, then introduced a resolution, that the Executive Committee be instructed to hold the next State Fair at Saratoga Springs. This led to a long discussion—some contending that the duty of selecting the place for holding the Fair should be left, where the constitution places it, in the hands of the Executive Committee—others that the course pursued for some years past, of having the nominating committee recommend the place, should be adopted. After much talk, and without taking any direct vote, either on the resolution of Mr. Corey, or on the motions made to refer the whole matter to the Executive Committee, it was disposed of by being referred to the nominating committee, who, after consultation, reported in favor of Saratoga Springs, which report was accepted without opposition.

On motion of Mr. Geddes, of Onondaga, the constitution of the Society was so amended as to require that in future, one year's notice should be given of all proposed amendments to the Constitution, before they are acted on.

Mr. White of Monroe, gave notice of an amendment to the Constitution, proposing an entire new organization of the Society, or rather changing it from a voluntary Society to a close board of agriculture—a change which would require not only a new Constitution, but the annulling of the present Society, and a new act of incorporation.

Thursday, Feb. 10.—The Society convened at their rooms in the old State Hall, ex-President Beekman, in the chair. On motion of Mr. Comstock of Oneida, a committee of one from each Judicial District was appointed to report at the next annual meeting, upon the propriety of providing more permanent fixtures and more perfect arrangements for the annual fairs, than can be provided for a single exhibition without a great sacrifice of time and money.

On motion of Mr. Barber of Cortland, the following resolution was adopted:

Resolved, That it shall be the duty of Vice Presidents of the State Society, to attend the County Cattle Shows and Fairs in the district in which they are located, and in case they cannot attend, that they procure a substitute, and make a report to the Executive Committee.

Thursday Evening—The Society convened at the Assembly chamber at 7 o'clock, when the President elect, Lewis G. Morris, was introduced to the Society by Dr. Beekman, and after a brief address, returning thanks to the Society for the honor conferred upon him, took the chair.

The Secretary read the reports of the several committees appointed to award premiums; after which an address from Ex-President Wager was read by Mr. Corey of Saratoga.

At the request of the Society, Mr. John A. King of Queens, made a report of the proceedings of the United States Agricultural Society, at Washington.

On motion of Mr. Sherman of Jefferson, a committee, consisting of Messrs. Sherman, Beekman and Prentice, was appointed to prepare resolutions expressing the wishes of the State Society in favor of an Agricultural School.

After the adoption of resolutions, returning the thanks of the Society to the Asssembly for the use of the Assembly Chamber; to the officers of the Society for the past year, for the faithful performance of their duties; and to Mr. Johnson, for his efficient services in the discharge of his duties as agent of the State of New-York to the World's Fair, the Society adjourned.

Executive Committee Meeting, Feb. 11.

The Executive Committee met at their rooms on Friday morning, L. G. Morris, Esq., President, in the chair, when a resolution was adopted, that the next State Fair be held at *Saratoga Springs*, on condition that the citizens of that place comply with the conditions last year required of the citizens of Utica.

Another, and an important measure, was adopted—that hereafter the badges of membership, admitting members and their families to the show-grounds, should be dispensed with, and that a uniform charge of twenty-five cents for admission to the show-grounds should be adopted; each member to be entitled to four tickets for the dollar paid for his membership.

Some such course had become absolutely necessary to prevent the gross abuses occasioned by the use of badges, for it is well known by those engaged in the management of the fairs, that very many of the badges are used to admit an indefinite number of families. At the last fair at Utica, quite a number of arrests were made of persons known to be engaged in this abuse. Some one would buy a badge and give it to a carriage load to go in on, when it would be passed through the fence to the man on the outside, and thus the same badge would be used time and again.

Winter Exhibition.

The exhibition of animals was held at Woolford's, on Washington street, and of fruits and vegetables at the Agricultural Rooms, on State street.

The "Cattle Show" presented some very interesting and excellent animals. Several yoke of very large fat oxen attracted much attention. Our readers may form a conception of their size, when we state, that although striking for their bulky proportions and massive flesh, a six foot man could not look over their backs on a level. Among the chief exhibitors of these colossal animals, were Sprague, Gilbert & Co., of Genesee co., and —— Stoddard, of Amherst, Erie co. Four oxen, belonging to the latter, weighed, in the aggregate, about 9,500 lbs. A beautiful fat Hereford heifer, five years old, weighing 2,300 lbs., was exhibited by E. Corning, Jr. A pair of steers belonging to A. Rose, of Preston, Chenango co., weighed 5,500 lbs.

Excellent specimens of long-wool sheep, and a few good South Downs, were presented by several contributors, among which we observed especially the animals brought by Hungerford & Brodie, of Jefferson co., D. S. Baker, from West Bloomfield, Ontario co., and by —— Felt, from Earlville, Madison co.

Among the swine were some beautiful young animals of the Suffolk and Essex breeds, from Lewis G. Morris, of Fordham, N. Y.

The show of poultry was one of unusual excellence, and was distinguished not only for its extent and variety, but for the high merit of most of the birds exhibited. Among them we observed some twenty different varieties, of every size, character, and color, from the little pugnacious, screaming Bantams, to the quiet and dignified Malays, Shanghaes and Chittagongs, and embracing the several sorts of white and variegated Polands, Dorkings, and others of middle stature.

There was a fine exhibition of winter fruits at the Agricultural Rooms. The most valuable, rare, and attractive collection was Ellwanger & Barry's winter pears, comprising 40 varieties. No collection approaching this, has ever, at any previous season, been exhibited in the State, and probably not in America. Among them, the *Doyenne Gris de Hiver* gives high promise of value; and *Doyenne de Hiver d Alencon*, or *Nouveau*, and *Prince's St. Germain*, were of a high character. There were several other sorts, of fine appearance, not yet fully matured. None, however, came up in *high flavor* to the *Winter Nelis*, which in this particular stands without a compeer, although inferior to several others in size, beauty, and productiveness. We observed some good specimens of that fine sort, the *Inconnue Van Mons*, from J. S. Gould of Albany.

The exhibition of apples was fine and extensive, consisting almost wholly of a number of collections from Rochester and its vicinity. Among these were six sorts from T. G. Yeomans of Walworth, and twenty-eight (including some new and rare sorts) form J. J. Thomas, of Macedon, both of Wayne county; thirty-eight from Ellwanger & Barry, twenty-six from N. & E. S. Hayward, twenty-four from A. Frost & Co., five from Judge

Buel, five from J. H. Watts, all of Rochester; eleven from F. W. Lay, and twenty from Robert Brown, of Greece, Monroe co.; twenty from Hart Massey, of Watertown, Jefferson co.; nine from C. Goodrich, of Burlington, Vt.; besides several from Wilson & Co., of Albany, and from P. Barber, R. C. Owen, and W. King, of Homer, Cortland co. The large size and fine appearance of many of the specimens excited much admiration, and showed very conclusively that the art of cultivation has lost nothing with the increase in the extent of fruit culture.

VIRGINIA.—The annual meeting of the Virginia State Ag. Society, was held at Richmond, on the 11th Dec., at which a permanent constitution was adopted, and the following officers elected:

President—PHILIP ST. GEORGE COCKE.

Vice-Presidents—Edmund Ruffin, Willoughby Newton, Lewis E. Harvie, S. T. Stuart, Thomas L. Preston, Gen. S. H. Lewis.

Executive Committee—Wm. Boulware, E. G. Booth, W. G. Overton, William H. Richardson, Richard Irby.

Rec. Sec.—C. B. Williams.

Cor. Sec.—Frank. G. Ruffin.

Treasurer—Bernard Peyton.

DELAWARE COUNTY.—Officers of the Delaware Co. Agricultural Society, for 1853:

SAMUEL A. LAW, Meredith, *President*.

Martin Keeler, Jr., Kortright; Geo. D. Wheeler, Deposit; Hiram Olmstead, Walton; Henry Dowie, Andes; Silas White, Franklin; N. M. Blish, Stamford; and Alex. Mable, Delhi, *Vice-Presidents*.

Alfred Redfield, Delhi, *Secretary*.

M. L. Farrington, Delhi, *Treasurer*.

The past year has been one of unexampled prosperity to the Society, as well as to the farmers of the county. The last annual fair was held at Delhi in the early part of October, and called out a larger concourse of people than ever assembled on any previous occasion in the county. The premium list was larger and more varied than any previous one, and for most of them there was a spirited competition. An address from S. A. Law, then as now, President of the Society, was listened to with interest.

The Society commences the present year with a large balance in its treasury, and with flattering prospects.

ESSEX COUNTY.—Officers of the society for the ensuing year:

President—WINSLOW C. WATSON, Port Kent.

Vice-Presidents—David Judd, Elizabethtown; Harry Glidden, Elizabethtown; Norman Page, Chesterfield; Chilion A. Trimble, Crown Point; William S. Flack, Essex; Monroe Hall, Jay; Phineas Norton, Keene; Brewster M. Hodskins, Lewis; Absalom P. Morse, Minerva; George W. Goff, Moriah; Alexander Ralph, Newcomb; Daniel Ames, North Elba; Jacob, Parmerter, North Hudson; James H. Pierce, St. Armand; Erastus B. Potter, Schroon; Thomas Delano, Ticonderoga; Samuel Root, Westport; Paul B. Boynton, Wills. borough; Artemas Beach, Wilmington.

Secretary—George S. Nicholson, Elizabethtown.

Treasurer—Levi D. Drown, Elizabethtown.

JEFFERSON COUNTY.—At the late annual meeting, the following officers were elected for 1853:

JOHN WINSLOW, of Watertown, *President;* Hiram Dewey, of Orleans; William Sill, of Rodman; John C. Cooper, of Adams; Benjamin Maxon, of Houndsfield; John Bradley, of Brownville; Stephen Johnson, of Clayton; Phineas Hardy, of Leray; Alexander Parker, of Watertown; Aaron Shew, of Pamelia; Asahel W. Danforth, of Philadelphia, *Vice Presidents*.

Executive Committee—John A. Sherman, Moses Eames, M. R. Patrick, Alfred Fox, S. D. Hungerford, James Brodie, Howell Cooper, Curtis Goulding, Jr., Asa B. Carter.

Treasurer—Tallcott H. Camp; *Rec. Sec.*—Hiram Holcomb.

ONEIDA COUNTY.—Annual meeting at Hampton, Jan. 6, when the following officers were chosen:

President—ROLAND S. DOTY, Rome.

Vice Presidents—Geo. Bristol, Kirkland; Thos. R. Walker, Utica.

Executive Committee—John Thompson, Augusta; Thos. D. Penfield, Camden; Daniel G. Drummond, Lee; H. N. Carey, Marcy; Henry Rhodes, Trenton; J. W. Jones, Utica; George Benedict, Verona; Jairus Knapp, Westmoreland; James H. Sherrill, New Hartford. *Treasurer*—Henry R. Hart, Whitestown; *Secretary*—Levi T. Marshall, Vernon.

QUEENS COUNTY.—The following officers have been elected for the ensuing year:

President—JOHN A. KING, Jamaica.

Vice-Presidents—David W. Jones, Oyster Bay; William L. Laing, Hempstead; Robert M. Bell, Flushing; Joseph Tompkins, Newtown; George H. Horsefield, North Hempstead; Benjamin I. Doughty, Jamaica.

Managers—Timothy Carman, Oysterbay; Micajah M. Pettit, Hempstead; Edward A. Lawrence, Flushing; George Hulst, Newtown; William J. Mott, North Hempstead; Bernardus Hendrickson, Jamaica.

Cor. Sec. and Treasurer—John Harold, Hempstead.

Rec. Sec.—Lendal F. Pratt, Flushing.

SULLIVAN COUNTY.—The officers for the present year, are—LOTAN SMITH, President; one Vice President from each town; Richard Oakley, Trea.; James L. Stewart, Rec. Sec.; and James E. Quinland, Cor. Sec.

SARATOGA COUNTY, N. Y.—The following are the officers for 1853:

President, SILAS G. SMITH, Stillwater.

Vice Presidents, Samuel G. Eddy, Stillwater; Jesse H. Mead, Galway.

Cor. Sec'y, Cramer Vernam, Mechanicsville.

Rec. Sec'y, John A. Corey, Saratoga Springs.

Treasurer, Reuben S. Burtis, Mechanicsville.

WYOMING COUNTY, N. Y.—Officers for 1853:

President, NEWBURY BRONSON, Warsaw.

Rec. Sec'y, H. L. Comstock.

Cor. Sec'y, Wm. Bristol, Jr.

And a Vice President for each town, and a town vigilance committee.

WASHINGTON COUNTY, N. Y.—At the recent annual meeting, MILO INGALSBE, of South Hartford, was elected President; Dr. James Savage, Argyle; Maj. Wm. Baker, Fort Ann; Dr. John E. Newcomb, Whitehall; Arch. Bishop, Granville; Peter Hill, Coila; Wm. Forbes, Fort Edward, Vice Presidents; Le Roy Mowry, Greenwich, Rec. Sec'y; and J. S. McDonald, Salem, Assistant; Rev. E. H. Newton, Cambridge, Cor. Sec'y; Ahira Eldridge, White Creek, Treas.

WINDSOR COUNTY, VT.—At the annual meeting, on the 10th of Jan., the following officers were elected:

President, BARNABAS DEANE, of Wethersfield.

Vice Presidents, Hampden Cutts, of Hartland; Chipman Swain, of Windsor.

Seretary, Lorenzo Kent, of Woodstock.

Traasurer, Charles Marsh, of Woodstock.

FRANKLIN COUNTY, VT.—Annual meeting at St. Albans, Jan. 14, when HARMON NORTHROP, of Fairfield, was chosen President; John Sheldon, of Sheldon, and Daniel Storey, of Fairfax, Vice Presidents; Victor Atwood, St. Albans, Treas'r; and C. H. Hayden, Sec'y.

LABOR SAVING MACHINERY.—It is said that the labor which is done in England, (chiefly, no doubt, by means of steam,) would, if done by hand, require the labor of every able bodied man on the face of the globe. How would those persons, who object to labor-saving machinery, like to go back to the old, tiresome, disheartening processes of doing everything by the strength of human muscle? And carrying the objections out by restoring old fashioned stages, travelling in sloops, turning the earth with a bull-plow, buying poor cotton cloth at fifty cents a yard, selling wheat at twenty-five cents, and threshing with a flail?

Answers to Inquiries.

Swamp Muck.—Will swamp muck that has been drained and left in a pile through the winter, answer for corn without being composted with other manure? How much should be applied to the acre? J. H. Bryan. *Farmington, Ct.*

Where soils are especially destitute of decayed vegetable matter, which is not often the case, swamp muck exposed to the winter, and applied alone, will prove beneficial; but we have never in any case found it nearly equal to good stable manure; neither have we found it so when made into a compost with ashes. But its greatest value appears to be its power of absorbing the liquid portions of animal manures. It will, if quite dry, absorb nearly nine times its weight of liquids, and hence, when applied to yards or stables will be of little comparative value if already saturated with water. It should be kept dry under a shed or in an out-house, where portions may be obtained and applied successively as wanted.

Guano for Corn and Cotton.—Please publish, as soon as convenient, the best mode of applying guano to corn and cotton—the quantity per acre &c. A. J. *Clinton, North Carolina.*

Guano may be well mixed with ten times its weight of pulverised soil or mould, sown broad-cast, and covered with a shallow plowing—a gang-plow would be just the thing for this purpose. The quantity should be from two to four hundred pounds of guano per acre—four hundred pounds for poor soils. If the soil is quite poor, an addition of one hundred pounds. applied in the hill before planting, would be of use. The best way is to drop a spoonful, (that is equal to a spoonful of pure guano,) to each hill, cover this with an inch of earth, and then plant the corn upon it. This mode has been found to succeed when unmixed guano in small quantities, has been applied to each hill.

We have no knowledge of the application of guano to cotton—but presume the same general rules to be applicable, as to corn.

An admixture of plaster or gypsum equal in quantity to the guano, has been strongly recommended, and would no doubt be useful—but in ordinary cases all the ammonia that can escape until plowed under, will be effectually retained through the absorption of the soil.

Corn After Turneps.—In answer to P. B., Otego, I would state my experience. I have, in three different seasons, planted corn where I had turneps on one side of a lot the year previous. The turneps were grown on what I considered the best land. There was a marked difference in the corn all the summer, and at harvest I found the produce much less, after the turneps, but as I did not measure it, cannot say how much less. D. Platt. *South Britain, Conn.*

Peat Ashes.—Will you have the goodness to state the comparative value of *Peat Ashes*, as a garden fertilizer? A Subscriber.

Peat ashes are worth about as much as the poorer kinds of wood ashes, containing usually about 5 or 6 per cent. of potash and soda, with considerable quantities of magnesia, lime, and often iron. Their value is greatly impaired by exposure to rains, which soon washes away their most valuable ingredients.

The Old "Black Hawk."—A correspondent in Michigan, L. A. Marshall, wishes us to state "whether or not the old Black Hawk horse, owned by David Hill, of Bridport, Vermont, is a Morgan or not." There is no doubt of the fact that Black Hawk is a grandson of the original Justin Morgan horse. His history, together with that of the original Morgan horse, has frequently been given in the Cultivator.

Manure From Geese.—A correspondent, (D. Platt, of South Britain, Ct.,) alludes to a common opinion among his neighbors, that goosedung is poisonous to pastures, and requests information. No accurate experiments have ever been made with it, that we are aware of, but there is no doubt that it is quite similar in character to the dung of other birds, which is well known to be among the most powerful of all kinds of fertilizers. The only way in which it can injure vegetation, is in quantities too large, corroding in the same way that guano is found to do.

Ever-Green Sweet Corn.—In your January number, 'E.' inquires about the keeping green and plump, Stowell's Ever-Green Corn. I reside in the city of Burlington, N. J., where the "inventor," as he claims, of the said corn, is to be found; and have frequently eaten of it, both of his growing and of my tenants, and think it in no respect preferable to other well cultivated sugar corn. F.

Information Wanted.

I would like to be informed through the Cultivator, if lime can be used profitably in "bringing up" soil that has been cropped, until it will not produce one half the amount of its original crop. The timber was principally beach and maple; and the soil what we call *hard-pan*. Soil from one foot to two and a half in depth. If lime can be made profitable, how should it be applied? I wish to know the best way to "bring up" my land; and any information through your paper would be thankfully received. Lime can be had for 18 3-4 cents per bushel. Plaster at about the same price. A Subscriber. *Berkshire, Tioga Co., N. Y., Jan.* 14, 1853.

Stall-feeding Cattle.—I wish to inquire through the Cultivator, for the best and most economical way of stall-feeding cattle. I would like to hear from some one who has had experience—give the particulars, whether the feed should be ground, provided you had to go six miles to a mill? and should the cattle be confined in the stable, or allowed to run out through the day? The plan that I have adopted for the first time, being the first trial—is to feed corn from the shook not husked, in the stables, giving pigs access to the manure. If any one has a better way I would like to hear of it. J. Otis. *Berlinville, Ohio.*

Culture of Castor Oil Bean.—Can you give the necessary information as to soil, culture, and manner of extracting the oil from the Castor Bean. Yours, Bracey Tobey. *East Glenville, Dec.* 27, 1852.

Rosendale Cement.—Mr. Editor: What is Rosendale Cement? Is it proper for making hard floors for cellars, or pointing up cellar walls? If so, is it the best and cheapest article for such purposes? How is it to be prepared for use, and what preparation does the surface need previous to its application—what will be the expense per square yard of such a floor. Information on these points will much oblige me. Yours, G. R. Gates. *Trexlertown, Leghigh, Pa., Dec.* 7, 1852.

Barn Door Fowls, &c.—Which are the best three varieties, all things considered, for the Middle and Northern States?

Are the pure blooded, or mixed breeds, the best? And if mixed, which varieties do best together?

For Northern New-York, what breed of cattle are the most desirable for the dairy, beef, and working oxen? What variety of sheep and swine are best?

S. R. W.

Fire Kindlers.—A late paper says that kindling materials enough to last a family a whole year, lighting quickly with a match, and starting any dry wood, may be made of a quart of tar, 3 lbs. rosin, mixed when melted, with as much sawdust, and a little charcoal—the whole to be spread while hot upon a board, and when cold broken into lumps the size of a hickory nut.

Horticultural Department.

Notes About Grapes.

THE *Western Horticultural Review*, loses none of its value on its course through each successive year. The last number contains an interesting communication from NICHOLAS LONGWORTH, the Nestor among American vine-growers, describing a new hardy *exotic* grape, which appears in every respect to be perfectly adapted to our climate. He says, "For many years I cultivated foreign grapes exclusively, to ascertain if any of them would suit our climate. Importing thousands of roots from the extreme south to the snow-clad hills of France, where the vine region suddenly ends, all proved a failure; and for years I have been rabid with all vine-dressers, who expressed a wish to cultivate the foreign grape. I am now compelled to cave in, and am gratified to do it." This remarkable grape, he ascertained had been several years in cultivation in Delaware, Ohio—had been brought from New-Jersey—and had been sent from Italy about 60 years ago. The name is unknown. N. Longworth, however, adds, "I believe this is the most celebrated of the German wine-grapes, and called the Traminer. It also resembles the Red Rissling, but I am told that it promises to be of a darker color; the color may be darker here, as we have a warmer sun." The vine is described as perfectly hardy, making a vast quantity of wood, which is small, short-jointed, and ripens to the utmost extremity of the shoot. It never mildews except in unfavorable positions. It is a profuse bearer, and ripens two weeks before the Isabella. Its color is clear red, bunches very small, berries round. uniform in size, and compact in the bunch—sweet, juicy, thin skinned, having very little pulp, and preferred in flavor to any American varieties.

Such a variety as this will be eagerly sought; and if its qualities hold out with successive years, it will prove eminently valuable.

N. Longworth states that he has about a hundred sorts of native grapes under trial, a few only of which will prove valuable. He regards the *Charter Oak* as an inferior Fox grape. He also finds that seedling Catawbas often have a disposition to go back to the parent Fox.

NEW SEEDLING GRAPE.—C. M. HOVEY states in his Magazine of Horticulture, that a new seedling grape has been produced from a native vine, fully equal to the Isabella, and ripening at least *one month* earlier than that variety. He received specimens of the fruit as early as the middle of September, which were the very last of the crop. The berries were round, black, and covered with a dense bloom; bunches as large as those of the Isabella; skin thin; flesh tender, with scarcely any pulp, "exceedingly sweet and delicious." The vine is hardy, vigorous and productive. The name of the originator is not given, as it would, if known, subject him to a flood of orders. The vine will probably be secured in the hands of a few, and in due time be offered to the public, who will of course make some allowance for the charms which novelty throws around every new horticultural production. Should this prove nearly so valuable as is hoped, and the same result be verified of Dr. Valk's new seedling, and Longworth's newly discovered hardy foreigner, we shall soon have quite an addition to our list of valuable varieties.

CLINTON GRAPE.—This variety, although not of the highest quality on the score of flavor, appears to lose nothing in reputation, as it becomes widely known and cultivated. It is well spoken of by C. M. HOVEY, who has fruited it at Boston, whose vines the past season were "loaded down with a prodigious crop." Its merits were also thoroughly examined before the late Ohio Pomological Convention. It was recommended for cultivation "for hardiness of vine, freedom from mildew, early maturity, productiveness, and value as a table grape—its qualities for wine being yet unknown."

A PROFITABLE VINE.—The Western Horticultural Review says that A. M. Clark, of Dayton, has gathered from a single grape vine, (we should like to know the variety, but presume it is the Catawba,) besides those used by the family, the past season, *fifty dollars* worth of grapes, at three dollars per bushel—that is, over sixteen bushels. We are told that it is well trained, well trimmed, and well cultivated.

Plans of Flower Gardens.

In the planning and arrangement of flower gardens, and in selecting and disposing of the plants in such a manner as to form the finest and most briliant combinations, may be found an interesting employment, by such of our readers as delight in the culture of flowers. This arrangement, it is very evident, cannot be made when the plants are in full bloom, for the garden must be laid out before it can be prepared for the reception of the plants or flower seeds, which may be deliberately accomplished during the leisure of winter; and the combination of colors, a most important requisite to effect, determined by artificial trial on paper, so that all will be ready as soon as the active season of spring commences.

There are two distinct modes of laying out flower gardens, each to be adopted according to circumstances. The first, where the most is to be made of a *limited piece of ground*, occupies the whole surface with flower-beds, with the exception of narrow gravel-walks edged with box. The second makes the most of a *limited quantity of labor;* and consists in keeping most of the surface covered with a smooth closely shaven carpet of green turf, in which, at proper intervals, flower-beds are cut. The great advantage of this mode, is the facility with which the grassy surface, which constitutes from two-thirds to nine-tenths of the whole, may be gone over once a week with the scythe, not requiring more than a tenth of the labor to keep cultivated beds in a neat condition.

Flower gardens of the first mentioned sort, are usually laid out in geometrical figures; one of the best plans which we have seen, was lately published

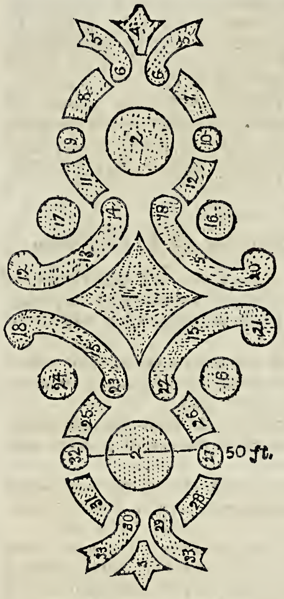


Fig. 2— *Dropmore Garden.*

in the London *Gardener's Journal*, and is copied in the annexed figure. It is in the form of a circle, and may occupy a central or secluded portion of the ornamental grounds. If the walks between the beds are three feet wide, the circle will be about seventy-five feet in diameter. If this is too large, the exterior portions may be omitted.

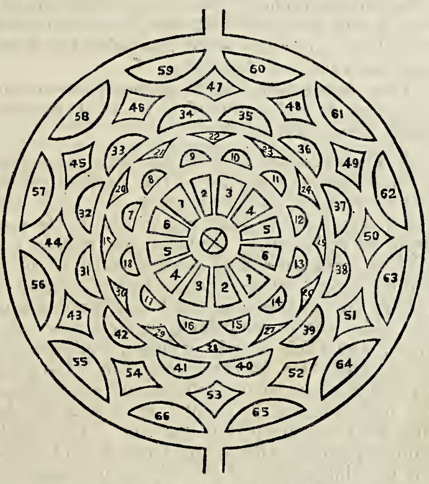


Fig. 1—*Flower Garden at Camden Hill.*

One of the best plans for a flower garden, the beds of which are cut in turf, is the garden at Dropmore, as given by Loudon, and represented in the above, figure 2. A similar combination of colors may be effected as in the preceding one.

The above, it will be seen, is in a regular or geometric form, a mode of laying out only adapted to small gardens. Where there is a greater extent, the irregular plan exhibited in fig. 3, given above, creates a far more pleasing effect. The ground chosen should be an open space, flanked by trees and tall shrubs, and in the instance here represented, it lies back from the dwelling, *a*. This space is surrounded by the gravel-walk, which is lined with beds cut in the smooth turf, most of them being circular, on account of the ease with which such beds are laid out, and their forms preserved. A few arabesque beds are introduced for variety. The summer house, *b*, is placed opposite the dwelling, and commands a view of the whole garden—a point where the visitor would naturally wish to rest a moment during his walk. One great advantage of this irregular plan, as every landscape gardener well knows, is the constant change in the view at every successive step in passing along the walk; while in the geometric mode of laying out, all is seen at once, from whatever point the spectator views the grounds. The superior cheapness of this plan, will also commend it to most Americans, where extravagance in expedniture is a point to be avoided.

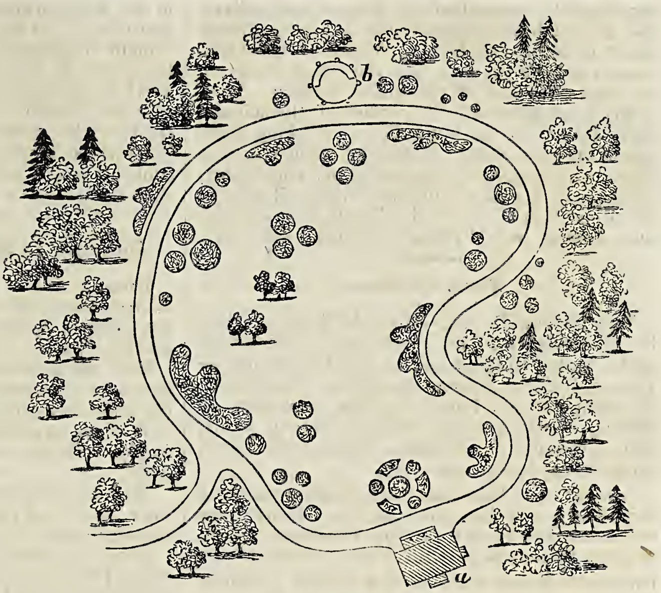


Fig. 3—*Irregular Flower Garden.*

Rose-Devouring Insect.

The roses have suffered greatly here for two or three years past, by an insect that deposits its egg on the under part of the leaves about the 10th of June, when the fruit trees are in full bloom. These eggs hatch toward the end of the month, presenting a small worm resembling a caterpillar, spreading themselves in every direction on the under part of the leaves, and when the time for blooming arrives, the roses have the appearance of being scorched by fire. Last year there was hardly a rose escaped them. I was told a few days ago, that the same destruction has occurred in Newfoundland. I have not discovered yet whether the eggs are laid by a bug or fly. F. McKay. *Halifax, N. S., Dec.* 1852.

This is probably one of a very numerous family of leaf-devouring insects, known by the general name of Saw-fly, belonging to the order Hymenoptera. The larvæ of many species have considerable resemblance in form to caterpillars. We should have supposed the above-mentioned insect to be the rose Saw-fly, described by Harris, were it not for the fact that the latter works on the upper instead of the under surface. They probably pass beneath the surface of the soil and there change to the pupa state. Shaking them down on sheets and destroying them may be tried; syringing with soap-suds, or, still better, washing them with a solution of whale oil soap, in the proportion of a pound of soap to seven gallons of water, would probably be most effectual.

Fruit Culture.

The Newer Pears.—Hovey's Magazine gives the following list of the newer pears, which have again fruited the past season, and proved fine:—Beurre Giffart, Beurre Langelier, Visouziere, Sheldon, Adams, Bonne des Zees, Josephine de Malines, Moyamensing, Oswego Beurre, Pratt, Tea, Triomphe de Jodigne, Doyenne Goubault, Kingsessing, Lodge, &c.

Among those that have borne the first time, and exhibited promising qualities, the following are enumerated:—Grand Soleil, Calebasse d'Ete, Moore's Pound, Beurre Sterkman, (this has been fruited for several years by Col. Wilder,) Zepherine Gregoire, Poire des Chasseurs, Doyenne Defais, Bergamot Leseble, Beurre Merod, Inominee Patrie, Belle Julie, Beurre Clairgleau, &c.

"Strawberries in November," are acknowledged by the Southern Sentinel, from Charles A. Peabody, as picked on the 25th of that month. The New-York Agricultor corroborates this statement, but fears that his assertion from actual knowledge, that the same individual had grown them ripe ten months out of the twelve, will be received by his brother quill-drivers, as purely fabulous. We can relate a fact almost as remarkable which none of our readers, at least, will doubt, that in the comparatively cold climate of Western New-York, we have seen a dish of good ripe strawberries, (of the Bush Alpine variety,) about one pint, picked on the first day of 12mo., (Dec.) and have gathered good ripe specimens on the 6th of the same month.

White Blackberry.—This fruit is noticed in a late number of Hovey's Magazine, by Robert Manning. He says the color is like that of a very ripe Sweetwater grape—shape like the black; berries slightly smaller; flavor good. Its most remarkable property is "its productiveness, in which, (says R. Manning) it far surpasses any thing else of the kind that I have ever seen. The fruit is borne on long clusters, two of which come from every bud; and on two of these, fifty berries have been counted as the product of a single bud." In consequence of the poor success which has attended all attempts to improve the blackberry by seedlings, R. Manning recommends that it be crossed with this pale variety.

Culture of the Gooseberry.—The committee of the Massachusetts Hort. Society, report on some beautiful specimens of English gooseberries, raised by *paving under the bushes*. They also speak in high terms of the continued excellence of Houghton's Seedling, and of its always being free from mildew.

Rome Beauty.—This handsome apple, as we are informed by W. N. Gillett, a correspondent of the Western Hort. Review, requires for the full maturity of its size, color, beauty and flavor, to remain long on the tree. It may be questioned, therefore, if it will prove of much value as far north as the State of New-York, where the seasons are shorter. The unusually fine growth of the tree, its early productiveness, good keeping qualities, and its fair, large, handsome fruit, have probably contributed much more to its reputation than the quality and flavor.

Influence of Manuring on Fruit Trees.

I would like to know from the experience of others, what is the effect of manuring or enriching the different kinds of fruit trees, with respect to bearing? (*a.*)

Will not a liberal allowance cause fruit trees that bear abundantly every other year, to bear in the same way every year? (*b.*)

Will not an excess prevent their bearing abundantly, and force them to excess of growth and leaf?

Will not an excess cause cherry trees to burst their bark, and engender insects to destroy their vitality? (*c.*)

Such is the case in my garden—some pear trees which I enriched, but not too much, bore a second abundant crop, while another, which I made very rich, bore but one pear this season.

The peach trees growing in good limestone land, bear much larger fruit, and more abundantly, by a liberal allowance of manure.

Is not the exposure, north, south, east or west, important and different with respect to the several varieties of fruit trees, in planting them on the side of a hill? (*d*)

I have planted cherry trees three times successively, in one spot, and with every care they have died, while a pear tree since planted in the same place, last year, is doing well.

Which is the *best* time to prune trees—in the fall, spring, or mid-summer? (*e.*) J. Hamilton.
Carlise, Pa., Jan., 1853.

(*a*) The character of soils, as regards richness, has the following influence on the productiveness of fruit trees: If the soil is poor, the trees will grow slowly, and the tendency will be to the formation of fruit buds. But the tree may be too feeble to bring these fruit buds forward, so as to produce a good crop—hence a higher degree of fertility, by not lessening much the formation of fruit buds, may develop them to far greater perfection, and a full supply of large, well-ripened, high-flavored fruit, be the result. But if too great a fertility is given to the soil—a very rare fault—fruit buds will not be formed, or if formed, the young fruit may drop from the tree. This result frequently occurs with young trees when in a rapidly growing state, and should not be regretted, as it is much better they should attain size, than become checked by heavy crops while young. With larger trees it is very rare, a stunted condition being by far the more frequent evil.

Those varieties, such as the Bartlett and Julienne pears, which bear abundantly when young, will not be so soon rendered unproductive by manuring, as the more tardy bearers, such as Tyson and Dix, but the fruit will be improved in size, and greatly in quality, by the increased vigor of the trees.

(*b*) Those varieties which bear alternate years, are not usually changed in this particular, so as to become productive every year, but only to bear better crops in their productive seasons.

(*c*) We have never known any degree of fertility to burst the bark of cherry trees in this state, although such is the result in the west. We have, however, known cherry trees to be killed by a heavy application of strong manure, that would not have injured an apple tree.

(*d*) Tender fruits, as peach and apricots, should have a northern exposure, that they may mature in season in autumn, and escape the danger of early growth in spring.

(*e*) There is a great deal of *theory* on the subject of pruning and not much close observation in practice; but so far as practice has gone, it has condemned spring pruning, and recommended late summer, autumn, or what is nearly as good, early winter pruning. Very small limbs or shoots may be pruned at any time. Large wounds should be covered with a wet excluding-coat—such as shellac and alcohol, of the consistency of thick paint, which is the best composition for this purpose.

The Two Earliest Market Peaches.

A. Higley, of Hart's Grove, Ohio, inquires for the two best and earliest peaches for an orchard of four hundred trees, to supply Buffalo market. For extreme earliness, take Serrate Early York and Fay's Early Ann. The latter may not yet be in extensive supply by the nurseries. As a substitute, plant Early Tillotson, a better peach than either in flavor, and a productive sort, but a poorer grower in consequence of the mildew on its leaves and shoots. Cole's Early Red, is a free growing tree, and an abundant bearer, the fruit of good size, of fine appearance, and of good but not the highest flavor.

The Stanwick Nectarine.

Our readers will probably recollect the notices of this new nectarine, which appeared two or three years since, and which placed this new eastern variety far above any thing of the kind that had ever appeared. Small one-year trees sold in England for thirty to fifty dollars each. It appears by a late number of the London Gardeners' Chronicle, that its value is likely to be much diminished by its extreme lateness—a quality not at all obvious in its Syrian localities, where our autumn fruits ripen early in summer. The Elruge and Early Voilet nectarines, old standard sorts, ripen under glass in England, early in autumn; the Stanwick, according to the account given, "remained on the tree hard and green till past the middle of October, and then cracked, and did not ripen." In other places the same result occurred, showing plainly that in England it cannot be expected to mature without fire heat. It will undoubtedly succeed better in this country, particularly in the middle and southern states. From its excellent quality, it is proposed to use it for crossing with our more common nectarines, in the production of new seedlings. The Gardeners' Chronicle, without mentioning names, treads rather closely on the toes of the Duke of Northumberland, for disseminating among pomologists the excellent specimens he raised, without ever so much as mentioning that they were ripened in a hot-house; but concludes that as the proceeds were for charitable purposes, that this omission may be, perhaps, in some degree excusable.

Culture of the Raspberry.

Newark, N. J., Dec. 1, 1852.

My Dear Sir—Yours of the 27th ultimo, soliciting information respecting the culture of the raspberry, was duly received. The inquiries you make shall be considered in the order in which you propounded them.

The Fastolf, Red Antwerp and Franconia, are the three best varieties in cultivation. The Fastolf is the richest, most highly flavored, and largest berry, but is too soft for a market berry unless the market is near at hand, and the greatest care is taken in picking and conveying to market.

The *True Antwerp*, known here as the North River Antwerp, and the Franconia, have sustained most fully the character given them by Mr. Downing, as to *size, flavor* and *productiveness*, and being hardier berries, are decidedly better for general cultivation. In the vicinity of Boston, where both these berries have been tested, the Franconia is the favorite berry. With us the Antwerp has been most favorably received, possibly because it has been better known. The Franconia, however, is beginning to assert its claim to a higher place in our estimation, than it has hitherto enjoyed. That indefatigable fruit cultivator, J. W. Hayes, has plantations of all the varieties, and after thoroughly testing them, side by side, gives the preference, even in our climate, to the Franconia. It is said to be later in ripening than the Antwerp. In New-Jersey we have not found this to be the case. May not such an impression be owing to its ripening its crop for a longer period? I know of no variety so prolific as the Franconia.

The Yellow Antwerp is a most admirable berry, and is worthy a place in every garden. Like the Fastolf, it is high flavored and soft, and consequently not adapted to general cultivation, but adds very much to the beauty of a dish of fruit, by contrasting so finely in color with the other varieties.

I have said nothing of Knevit's Giant—its high commendations entitle it to a more general trial, with the hope it will soon be removed from the *trial* to the *tested* list, in the catalogue of the American Congress.

The raspberry will grow well in any soil, if made rich, and sufficiently deep. My soil is a gravelly loam, and in it I find the raspberry to grow remarkably well; as evidence of this can add—I have taken from 65 stools, occupying a strip of ground 4 by 200 feet, canes that have yielded me when sold, $50. I have seen the vines of equal vigor and productiveness on clayey soils. Mr. Downing advises choosing an open sunny quarter of the garden, for a raspberry plantation, the wisdom of which it does not become me to question for northern climates, but it is not the best for our latitude. My raspberries have done best, both in the production of fruit, and in the growth of canes, where they have enjoyed some protection from our parching mid-summer sun.

You know my farm is so fully appropriated to the production of fruit, as to merit the appellation of a fruit farm. Having studied to crowd together the greatest number of trees consistent with their best condition, in a given space, to occupy most fully the ground with fruit, and thus attain to the practice of the greatest economy in the cultivation, I have been induced to interpose between my rows of standard pear trees one side, and dwarf on the other, a row of raspberry vines. In one position on the farm these rows run from east to west; in another with similar culture, and in other respects equal, these rows run from north to south. In the rows that run from east to west, I have observed five-sixths of the canes to grow upon the north side of the row, owing to the foliage of the vines shading the ground sufficiently to preserve a degree of moisture, while the surfaces not so protected are parched by the scorching rays of the mid-day sun. All these varieties need protection. I have yet to learn that they can be left uncovered through the winter, and a fair crop of fruit be taken from them the succeeding summer. By referring to the standard works on horticulture, particularly Downing, you will find the Antwerp spoken of as being hardy enough to withstand the cold of our winters unprotected. It is true the canes will not be killed, but the crop of fruit will be very much diminished. Such is my experience, and similar I judge to be the experience of other cultivators around me, for I know of none who leave their vines uncovered. Such I know to be the practice of cultivators of the *Franconia*, reputed the hardiest of all the varieties, in the vicinity of Boston.

With a few words as to the treatment of our plantations, I will close. Early in November we go along the rows, and remove all the shoots of this year's growth, except such as are needed to constitute the stools for the next summer's fruiting, of which from three to five are left, if as many are found clustered together; this being done, two shovels full of well rotted manure is deposited around the stool, preparatory to covering, that its nutriment may be carried by the winter rains to the roots of the plant. The covering is readily done, by gently bending the canes from the contiguous stools together, to the ground, in which position they are held by the hand till a spade full of earth from an assistant operator fixes them in their position. The rows are in thls way run over by a man and a boy; the covering is completed by another following, or is left for a subsequent task.

With the present prices of this delicious fruit in most of our principal cities, and the ready sale for the canes from our plantations, it is I think the most profitable crop we can take from our farms. Truly yours, J. M. Ward.

◆

Rapidly Growing Trees.—Perhaps the most rapidly growing *evergreen* is the Norway Fir—much exceeding in this particular the Balsam, Arbor Vitæ, or White Spruce. On a deep, good soil, it often shoots up four or five feet in a season. The White Pine is a good grower. Among *deciduous* trees, the Silver Maple (*A. dasycarpum*) is one of the very best, far outstriping the Sugar Maple. The Silver Poplar is scarcely equalled by anything, in the speed with which it expands from a small twig into a large tree; and its glittering silvery foliage is certainly very beautiful. But it throws up suckers beyond all endurance, if near a dwelling or garden, and must therefore be very sparingly introduced, and be planted remote from cultivated ground, where a dozen scores of suckers cannot prove an inconvenience or injury.

The English Russet.

Some diversity of opinion prevails with regard to the value of this apple. Its flavor is not of the highest character, being only what pomologists would denominate "good," but in keeping, it exceeds everything else well known in the whole list of apples. At the Buffalo Pomological Convention, some years ago, early in autumn, a half bushel of this sort, a year old, was exhibited, having apparently all the soundness and freshness of newly picked specimens. A cultivator was formerly in the practice of handing to his friends a dish of English Russets with other sorts, with the remark, "Here are this year's apples, and there are last year's; take your choice." The New-England Farmer, (speaking of the Hunt Russet, a synomyn) says, "We have seen the apples, *two year's old*, fair, plump and juicy, kept on a shelf in a cellar, with no extra care whatever." An acquaintance was formerly in the practice, year after year, of keeping his large crop of English Russets till other apples were gone, and then, just before early apples came in, of selling them invariably for one dollar per bushel, the common price of the best winter apples, being about twenty-five cents. This variety is profusely productive, the fruit hanging on the branches like strings of onions, which is one reason that the specimens are of only moderate or of rather small size. Its smallness, in connection with its firmness, is no doubt one great reason of its keeping qualities, by furnishing a means of escape from the usual battering and bruising given to winter apples, in the very common and careless process of picking and carting. These qualities taken together, that is, long keeping and productiveness, have rendered the the English Russet a very profitable apple for market, although some refuse to set out large numbers on account of its very moderate flavor.

We have given the Hunt Russet as a synonym—the New-England Farmer, which gives an account of it, is so inclined to regard it, and pronounces it as standing at the head of all apples in New-England—which is certainly correct, so far as long-keeping qualities are concerned. The difference in the thickness of the stem, which that paper notices, is a variable character, huge grown specimens in nearly all apples having shorter and thicker stems than those of smaller growth.

◆

Securing Grafts.—We have never found any mode equal to packing grafts in fine moss, for keeping through winter. Earth or sand is the most common covering; but grafts kept in these must be carefully washed to prevent dulling the grafting knife. Besides, this covering is not so easily removed or replaced as moss.

◆

Hardy Climbers.—The best hardy climbing ornamentals, for a trellis or arbor, are the following: Bignonia radicans or trumpet creeper; the Chinese Twining and Yellow Trumpet, and Scarlet Trumpet Honeysuckles; Chinese Wistaria, (requiring very deep and rich soil;) and Aristolochia or Dutchman's Pipe. To these should be added those transcendently showy climbing roses, the Baltimore Belle and Queen of the Prairies.

The Grazier.

Training Steers.

HAVING had some experience in breaking and managing oxen, I take this opportunity of presenting, in answer to one of your correspondents, my mode of transforming the wild and unmanageable steer, into the gentle and well-trained ox. The first point is to make them tame and gentle. This may be accomplished by feeding them out of the hand, and carding them daily. They should be approached gently, without yelling at them until they are frightened out of their wits. After having reduced them to a state of perfect docility, a good yoke should be procured, suitable to their size and strength. A small pen is necessary to put on the yoke; approach gently with the yoke, patting and speaking gently to them until you have the yoke on the off steer; then let an assistant drive the other under the yoke. Their tails should then be securely fastened, to prevent their getting the habit of turning the yoke. They should be yoked in the morning, and unyoked at night—in this manner, for several days, until they become accustomed to the yoke.

The first thing to teach them is, to stop at the word of command. This may be done by striking them across the face; the blows should be repeated until they stop, and then discontinued; by striking them for every non-observance of the word of command, they will soon learn that by stopping they will avoid it, and will act accordingly. They may be taught then to 'gee' and 'haw,' by gently pushing them around. Backing may be taught by beginning with an empty cart on a side-hill; then on a level; then with an increasing load, until they will back nearly the same load they will draw. They should never be put to a load that they cannot readily draw, or drilled by prolonged exercise beyond the period when it becomes irksome. Loud and repeated yelling, or the severe use of the lash, is both cruel and useless. Clear and intelligible, yet low and gentle words, are all that is necessary to guide a well trained ox. The ox understands a moderate tone more perfectly than a boisterous one, as all sounds become indistinct as they increase. A command should never be given unless enforced. Many bear with bad tricks for a long time, without even an expression intelligible to them—but when patience departs, a thorough storm of blows is poured upon them. This is the way to ruin every beast; a single blow should be given for each offence.

Working oxen should have their rations of grain as well as horses, whenever there is hard work to be done. The yoke should be carefully made, and set easy, and the bows well fitted to the necks, and properly fastened to the yoke. Cattle are liable to sore necks if used in a storm; their necks should be greased, and have respite from work until well. With kind treatment and good yokes, their necks will seldom become sore. J. *Montgomery co., N. Y.*

Saving Fodder.

There are a number of ways by which fodder may be saved during this scarce winter. Racks, to prevent treading in the mud, are one; warm shelter and clean litter, to prevent a large consumption merely to keep animals warm, is another; chopping up hay and straw, and mixing them while feeding out, with chopped roots, is another. Corn fodder is commonly very much wasted by the rejection of the hard stalks in eating—a difficulty which many who have chopped them, have failed to remove, in consequence of the great length of the cuts which most straw cutters give them. In England, hay and straw is cut up by machines driven with steam, almost as fine as powder—this is still more necessary with the harder and coarser stalks of corn. An acquaintance drives his stalk cutter with three horses, cuts very short, and finds great advantage in it in feeding his thirty cows.

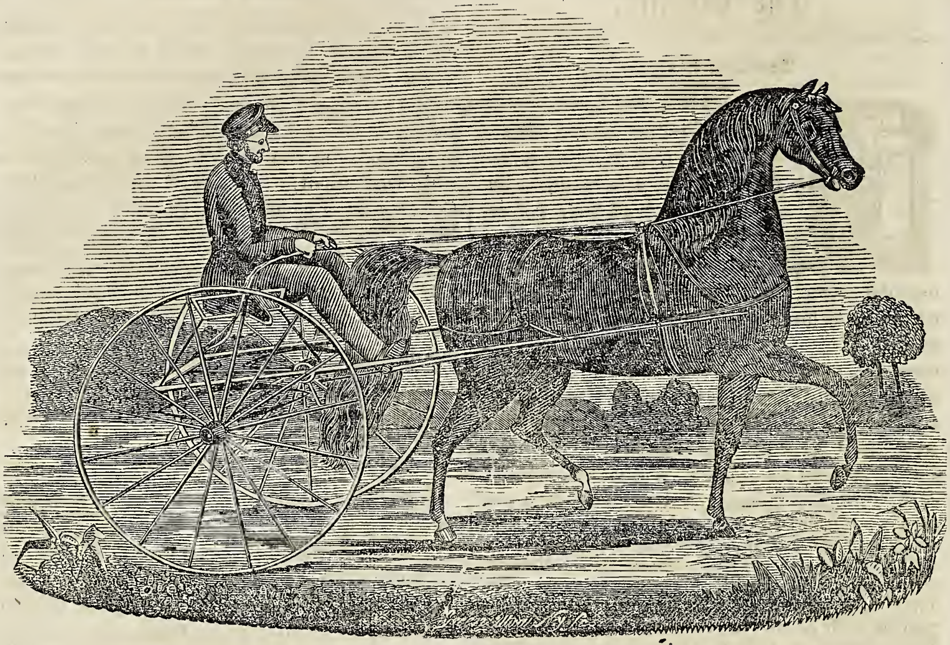
Apples for Stock.

It will be a long time before there is a surplus apple crop in this country,—if farmers only know how to use them,—even if large orchards are numerously planted every year. Fruit for market, foreign and domestic; next for home use, as table fruit, and for dumplings, puddings, pies, and for stewing; thirdly, for fattening hogs, for which they serve an admirable purpose; fourthly, for feeding milch cows, where they prove also valuable, if the quantity is gradually increased from a small commencement; and lastly, they are particularly useful as fall and winter food for horses. The Michigan Farmer informs us, that I. W. Ruggles, of Pontiac, raises a large proportion of *sweet* apples, on which he feeds nearly all his domestic animals, and that a neighbor considers them nearly as good for horses as oats. We have long known them to be fed very advantageously to horses.

Tumors on Cow's Udders.

I have in my possession a heifer, two years old, that has a bunch growing on the udder, just forward of the teats; it is a little flattened, an inch in diameter, and it is connected to the udder by a neck, about the size of a pipe-stem. Would it be advisable to cut it off by tying a string around the neck? It has been about one month since first discovered; at first it was about the size of a walnut without the shuck. Will some one please answer in next number. J. H. Bryan. *Farmington, Ct.*

Bots in Horses.—A correspondent of the Southern Planter gives the following, as a simple and excellent remedy for bots in horses:—drench freely with sweet milk and molasses, well shaken together; continue it, a bottle full every fifteen or twenty minutes, according to the severity of the attack, until the animal becomes easy; then give a quart bottle full of strong salt and water, followed soon after with a quart of castor oil. This he says, if administered in time, always cures. The difficulty is, with many not well experienced, to distinguish attacks of the bots from some other diseases.



Young Black Hawk, owned by J. D. Remington, Sennett, N. Y.

Young Black Hawk is five years old—was bred by Mr. Hyatt, of Litchfield, Ct.—was got by Hill's Black Hawk, Vermont. Dam by Old Membrino of Dutchess co.—gr. dam by Plato—gr. gr. dam by imported Messenger. His dam was a fine representation of the Messenger stock of horses, a mare of great bottom and speed. Young Black Hawk was bought of Mr. Hyatt in 1848, by the present owner. He is a jet black, of good size, and one of the best proportioned and elegant moving colts that can be produced. He took the third premium at the State Fair at Rochester, in 1851, and the fourth at Utica, last fall, in class of all-work; and he also took the first prize in our county last fall—also when he was two years old.

The above figure may be considered a correct likeness of the horse from which it was taken. It represents his style in harness very correctly; he is as playful and good humored in his disposition as a pet lamb, though possessing all the courage of the high mettled Arabian. He is fifteen hands high, and weighs over 1,000 pounds when in season—his back is fifteen inches long, and hips twenty-three in length—also sixteen inches across the loin, from one curl to the other—a line drawn from the point of shoulder back to a line dropped from setting in of withers to his back, is two feet. By the few points I have given the measurement of, the public can judge pretty correctly of the rest. Yours respectfully, J. D. REMINGTON. *Sennett, Cayuga co., N. Y., Jan. 2, 1853.*

Duration of Gestation in Animals.

Among the lower animals, it has been observed that the length of the time which the female carries her young, is less definite and uniform than with mankind. These variations have been, by some, supposed to be produced by the age, the constitution, the health or condition of the parents; by others, the diet, or the sex of the young, the season of the year, and other causes, have been assigned, but none has been named that has been *generally* received as the true cause.

Over twenty years since, this subject attracted the attention of the *savans* of France, and a member of the French Institute made numerous observations, from which he obtained some results that are worthy of attention, even at the present day. He had kept a careful record in the case of 577 cows, 447 mares, 912 sheep, 161 rabbits, 25 sows, 8 buffaloes, 4 dogs, and 2 asses.

In regard to the cows, he found their usual term was a few days over nine calendar months; but he observed some, who appeared to complete their full time at eight months, and others who carried their calves for ten months and twenty-one days, making a difference between the shortest and the longest time, of eighty-one days; a difference much greater than is generally supposed.

The buffaloes, he found to vary from ten to twelve months, and yet the young brought forth at the shortest term, appeared to be fully matured for external life.

Of the mares, he found the common time to be a few days over eleven months, yet some did not foal for more than fourteen months. The greatest variation, among those whose full time appeared to be completed, was 132 days. Among mares, it was found that a much larger proportionate number exceeded the usual term, than among the cows.

Of the two asses, one foaled at the end of the 13th month, and the other at the end of the 15th

And the sows, also varied from the end of the 3d, to the end of the 5th month.

The sheep were more uniform in regard to the time they carried their young, than either of the above; as but few exceeded, while more fell short of the usual period of five months. The greatest *difference* amounted to but eleven days. The dogs varied but four days, and their period was found to be two months; while the rabbits, who carry their young but one month, were found to vary eight days. C. H. Cleaveland. *Waterbury, Vt.*

L. F. Allen, of Black Rock, N. Y., has kept (according to the *Agricultor*) an accurate statement of forty cows, the past season, consisting of Short-horns, Devons and Herefords, and grade Short-horns and Devons. No average difference of time was found to occur between cows of either breed or its grades. He found no difference between bull and heifer calves—contrary to common opinion—and no difference between old and young cows. The shortest period was 274 days; the next shortest, were two cows at 279 days; the longest was 291 days; the next longest, two at 290 days. Both the longest and shortest period were with bull calves. The average time for the whole forty cows, was 283½ days, or 9 months and 13 days.

The most protracted period that ever came under our observation, was 319 days, or 10 months and 19 days, only two days less than Tessier's longest, and exceeding by 28 days the longest period mentioned by L. F. Allen. The calf was quite as large as an ordinary four-weeks calf, and required the assistance of four men in its birth, destroying the calf without injury to the cow. This cow usually, but not always, extended her period beyond the usual time.

◆

Breaking Steers.

The intelligence (if the term may be used,) and instinct of animals, especially of young animals, are so closely combined, that the latter needs only to be studied, to enable the farmer to know how to manage his cattle and horses, so far at least as breaking and general use is concerned.

Young animals are at first instinctively afraid of restraint. They are unwilling to have their freedom of motion impaired, or impeded in any way. Their instinct leads them to resist any restraint put upon their "natural rights," and to resist until they find resistance useless.

This is the great thing to teach them—that resistance is useless, and getting away an impossibility.

Turn your steers intended for mates, into a barn floor well littered, and close the doors. Be sure that they cannot get off from the floor by jumping into the bay, or find any means of egress, until you are ready to turn them out. Have your yoke, a chain, and if at hand, a pole or cart, or sled tongue.

Then quietly, without loud words, go patiently to work. The steers will soon find they cannot get away, and without any lengthened resistance, will suffer themselves to be approached, handled, and yoked. Then teach them the meaning of the words and phrases to be used—to haw, to gee, &c., at the word Hook and unhook the chain, and teach them to turn with the tongue or pole between them. It is strange how much can be accomplished in a few hours, by a man who will work in this way patiently, without scaring the steers, or getting angry at them, or abusing them.

A long whip should be used, made of a withe some eight feet long, and a short, light lash, from one to two feet in length.

Never turn steers into a yard or pasture, with the yoke on. Give them to understand that when the yoke is on, they are to be subject to a master until it is taken off. Never feed them in the yoke, unless it be a nubbin of corn from the hand, or something of the kind.

Any man who is fit to break steers, will get a yoke *handy* in two lessons as above, of half a day each.

But they must learn to lay out their strength by degrees; and the best way to do this is to work them with other cattle—in the middle, or behind.

This is a very good course to pursue, perhaps as good as any. Those who have tried it fairly and faithfully, always break their steers in this way. Two years old is young enough to commence the process; and when commenced, let it be carried out, by yoking, driving, and working every day, if possible, for some succeeding weeks.

But after all, few rules can be given which will be of any use, unless a man has the *will* to study the instincts of his animals; the *wish* to find out the instincts, and the *common sense* to treat them as animals governed by instinct. J. *Stowe, Vt., Jan.* 24, 1853.

◆

Oxfordshire Sheep.

I am convinced that a good agricultural paper pays the farmer a hundred fold its cost, simply as a matter of *pecuniary profit*. I have just had this truth illustrated in my own experience. Like many other farmers, I had been for several years dissatisfied with the profits on raising fine wooled sheep. The income has for years, been little more than the cost of food and attendance; I was satisfied that wool merely, without mutton and market lambs, would not pay. But there was nothing better about me than the French Merinos, and these at extravagant prices, and superior, if at all, for wool only.

In this state of mind, I became acquainted through the Cultivator, with one of your correspondents, John T. Andrew, of West Cornwall, (Ct.) a successful breeder of fine animals. In the course of some correspondence, relating to the purchase of some of his Chittagong fowls, I learned that he had just such sheep as I wanted. I have just received four specimens, a pair, and two lambs. They are New Oxfordshire, of the largest size, and most beautiful in form and fleece. The pair, when in good condition, will weigh 500 lbs. They come early to maturity, fatten well, and will bring from fifteen to twenty dollars each, for mutton. They fully satisfy my highest expectations, and I shall be proud to exhibit them to the lovers of beautiful sheep and fine mutton. The French Merinos are selling from $100 and upwards. These are, for my use, better and more profitable sheep, and yet the four cost me, with all expenses included, not more than $100. For the other, $300, I am much obliged to the Cultivator, and it seems to me a very small tribute of gratitude, to send you the enclosed two dollars as the first year's subscription to the Country Gentleman. Yours, &c., O. N. Bullis. *Chazy, Nov. 28th*, 1852.

Notes for the Month.

To Agents and Subscribers.—We take this early opportunity to tender our sincere thanks to the Agents who have so efficiently and promptly seconded our efforts to furnish the farmers of our country with a valuable and cheap journal, and to our many friends who have sent us their names without direct solicitation. Permit us farther to suggest that while the snow covers your fields, and you are to a considerable extent relieved from severe labor, you cannot better promote the cause of agriculture, than by urging upon your friends and neighbors the importance of subscribing to and reading the Cultivator. It remains for you to say, whether we shall be sustained in furnishing you with such a variety and amount of matter at a price so nominal. There is still ample time to canvass your towns before spring opens. Will each and every one of our subscribers take the matter in hand, and "build over against his own house."

To Correspondents.—We have several papers, in answer to the inquiry as to the best method of training steers, the first of which has already appeared. The others shall be given hereafter. We are greatly obliged to *An Otsego Hop-Grower*, for the continuance of his papers on the culture of the hop, all of which will appear in due season. A large number of other favors, from various sources, are filed for insertion, for which the authors have our thanks.

An Improved Seed Drill.—We have recently seen a working model of a seed drill, invented by Beebe & Wormer, of this city, and for which they are taking measures to secure a patent. The drill is designed to be drawn by two horses, is six feet in width, and makes nine furrows, eight inches apart, when used for sowing grain. The drill points are simple in their construction and attachment to the beam, and can easily be removed to adapt the machine to planting corn. The contrivances for regulating the amount of seed do not differ essentially from other drills in use. In the rear of the axle-tree and suspended to the main frame-work of the machine, is a harrow, so adjusted that a tooth follows on either side of the drill furrow, covering the seed which has been dropped completely, and still farther in the rear is a roller, which completes the work. The drill points and harrow are easily raised by a lever at the rear of the machine, when turning in the field or passing any obstruction. The drill has a solid, substantial look, and will no doubt be durable and do good service. The drill, harrow and roller, are not new inventions, but the makers of this machine claim originality in the effective combination of them, and in simplifying the construction of several parts. We shall present a cut of the machine at some future time.

Prof. Norton's Lectures.—The Executive Committee of our State Ag. Society, made application to Prof. Norton's family, for the course of lectures delivered by him in this city last winter, for publication; but we regret to learn, as we do, by a letter from Prof. N.'s father, that they "are not in such a form as to admit of their publication. They were never fully written out, having been delivered at Albany and New-Haven, from brief notes."

A Hint.—"I got an excellent idea from your Specimen No.—'Make the introduction to all communications as short as possible.' Of all things, I hate to read long prosy introductions, and shall expect your paper to be pretty free from them."

Orchard Grass.—Extract of a letter from Lewis Sanders, Esq., Grass Hills, Ky.: "In one of your recent numbers, a correspondent expresses an unfavorable opinion as to Orchard grass. My experience in cultivating it warrants me in recommending Orchard grass in preference to any other, either for pastures or for hay. Upon this subject, I have recently prepared a paper, which will soon appear in the Louisville Democrat." We hope Mr. S. will send us a copy.

Giving Names—and Prices.—A correspondent very properly recommends that persons writing for publication give their names and residences, as private communications addressed to them at many times, would be beneficial. Also, if persons advertising farm implements would give their prices, it would save purchasers much trouble, and insure many sales for themselves.

Corn for Fodder.—Prof. Mapes asserts that the Stowell corn, so famous for preserving its succulence for winter boiling, "will yield double the burden of stalks and leaves," of any other he has tried. If this should prove true, it will certainly be more valuable for fodder than for the winter use of the grain, which, so far as we have tried it, is too tough to be agreeable, after being strictly preserved and prepared according to the published directions.

The Balance Gate.—Wm. C. Van Hoesen, of Leeds, Greene co., N. Y., has patented an ingenious and simple contrivance, for opening and shutting a gate without dismounting from a carriage.

It is supported by two upright posts, between which it is balanced by posts in the centre. On the top of the upright posts are placed horizontal strips, extending each way half the length of the gate. To these strips, cord pulleys are attached, connecting with levers over the posts. By pulling the hand cords which hang at the end of the horizontal bars, in reach of the person driving, the gate is detached from its fastenings and swings open and fastens itself; and when the carriage has passed through, the driver pulls the cord at the other side, and the gate swings back to its original position.

The inventor is spoken of as a practical farmer, who has thoroughly tested the practical operation of the gate, and found it to work well. We have not seen this gate, but it is manifest that the less time and trouble requisite in passing from one enclosure into another, or from private grounds to the public highway, the better.

Small Potatoes.—Mr. J. Case, of Troy, (Pa.) says:—"I have seen several large "stories" in the papers lately on raising potatoes, and must tell you one that has not been in print. One of my neighbors planted last spring, *one bushel* of the *smallest* kind of all sorts of potatoes, (and cut every one at that, making two pieces in a hill,) and harvested *eighty* bushels of *good sized* tubers from the one bushel planted."

[The corn crop about which Mr. C. inquires, produced 95 bushels *shelled* corn per acre.]

Mulching Potatoes.—A correspondent of the Genesee Farmer covered his potatoes as usual, but on one part applied straw six inches deep. Those covered, were "much larger and better" than the others. We have heard of other similar results, but the experiment has not always proved successful. Thomas Peirson, of Lockport, N. Y., an intelligent English farmer, tried the experiment the past season, on rather heavy soil, without any sensible effect.

Cattle Importing Company.—An association has been formed in Madison county, Ohio, with a capital of $10,000, all of which has been raised, for the purpose of importing improved breeds of stock, for the farmers of that county. One or two agents are soon to be sent out, to make the selections.

Hog Packing at Chicago.—The number packed the past season was over 22,000.

A Fine Farmery.—The report of the committee on farms, of Licking County Agricultural Society, Ohio, describes the farm of N. B. Hogg, as remarkable for its neatness and extent. The portion of the barn allotted to implements, contains nine plows, five or six scythes, ten or fifteen rakes, all neatly arranged; and in a long building adjoining stands half a dozen wagons, and several harrows and cultivators. The barn-yard contains three acres, the whole a fine turf, and free from straw and litter. The stable is well arranged, and has accommodations for forty horses. A fowl yard, enclosed with a picket fence fifteen feet high, is variously divided for different kinds of fowls—the hen-house is two stories high, and contains several apartments. The committee does not inform us of the size of the farm.

A Convenient Farm.—The same committee, in their report of the farm of Peter Kaufman, containing two hundred acres of highly cultivated land, state that it is divided into ten acre fields, every one of which is entered by a good gate with masive posts, and that not a set of bars is to be found on the farm. Now, suppose that every gate, twenty in number, was replaced by bars; that each of these were opened one hundred times yearly, and that only three minutes were consumed each time in removing and replacing—what would be the aggregate amount of labor expended annually on the twenty? No less than *six thousand* minutes, which at 10 hours per day, would be ten days a year consumed in the operation.

Good Crop of Corn.—The Windsor County, (Vt.) Ag. Society, at its recent winter meeting, awarded its first premium for the best field of corn, to Mr. J. W. Colburn, of Springfield. The field consisted of four and a half acres, and produced 95 bushels per acre—weight of shelled corn, 58 1-2 lbs. per bushel—weight of cobs, 12 3-4 lbs. per bushel. This was a great product, considering the severe and protracted drouth of the last season. "It was," says Mr. Colburn, "the *deep plowing* which saved the crop."

Conveying Cattle by Railway.—So great is the saving of fat and flesh by the transportation of cattle by railroad, instead of by the old way of driving, that a distinguished English farmer estimates his saving, in this way alone, to amount to six hundred pounds sterling, or nearly three thousand dollars annually.

Fear of Competition—The Cheshire Earmers' Herald reports the speech of Sir John Shelley, in which he asserts that "there is no use in taking the trouble of farming at all, until the land is drained." He applied the same remark to the erection of suitable buildings, constructing roads, and making other permanent improvements. He has for 17 years farmed 2,000 acres, and is not afraid of all the competition of the world, because his land is thoroughly drained, and his buildings in good condition. Those who have undrained land, have much greater need to fear the competition of such farmers as himself, than of foreigners.

Sub-soiling in California.—We perceive by the report of the Agricultural Fair held at Sacramento, that both farming and gardening are making very commendable progress in that sun-set region. Some of the best horticulturists are strenuous advocates of the use of sub-soil plows; and as a proof of a fair depth of soil, we may mention the *beets* exhibited by Smith, Barber & Co., which were seven and a half feet long, but we are not informed whether this length included the stalk, or the root only. Some of the vegetables were no larger than we sometimes raise in New-York State.

Liquid Manure Lost.—Dr. R. A. Smith, examined some years ago, the waters of the small river Medlock, in England, a stream that would hardly be dignified with so high a title in this country as the name of *creek*. He found by analysis combined with estimate, that the following substances were carried down by the waters of this stream, yearly:—3,200 tons of potash, 4,640 tons of soda, 17,000 tons of lime, 1,280 tons of phosphoric acid, 8,000 tons of sulphuric acid, besides other valuable matter. Its thickly peopled banks, no doubt increased this amount of manure, which might have been turned to admirable advantage in irrigation.

Value of the Hay Crop.—The governor of New-Hampshire, estimates the value of the hay crop of that state at about $7,000,000 to $8,000,000 yearly.

Standard Weight of Grains, according to the laws of New-York:—

		Ordinary weight.
Wheat,	60 lbs.	55 to 65 lbs.
Rye,	56 "	46 to 56 "
Barley,	48 "	44 to 56 "
Oats,	32 "	28 to 44 "
Indian Corn,	56 "	50 to 62 "

In our Jan. No. we published an advertisement of H. L. Emery, in which was the following paragraph:

> It is proper to remark here, that Westinghouse was at one time the agent for selling the Emery power, and but recently has made the kind used at these trials, which, excepting an alteration in increasing the gearing, (to its disadvantage in strength and durability,) is in all other respects essentially the same as the Emery power, and is claimed to be a bare-faced infringement of his letters patent, and legal proceedings have been directed against him therefore—thus establishing beyond cavil the superiority of the Emery's Endless Chain Power over all others, and particularly the *rack and pinion*.

This, we are assured, does great injustice to Mr. Westinghouse, who denies having at all infringed upon Mr. Emery's patent, and assures us that no suit has been commenced against him to his knowledge. Of the real merits of the case we know nothing; but we deem it but an act of justice to Mr. Westinghouse, to give this statement, and to disclaim all intention of injury to him.

New Washing Machine.—Among the new inventions, recently brought to notice, is that of the "India Rubber Peacemaker Washing Machine," mentioned by J. S. Gould, in his report of the fair of the Rhode Island Agricultural Society. He remarks, "It is not saying too much to assert that the machine *perfectly* imitates the action of a woman's hand, both in the degrees of pressure and the mode of rubbing. It is precisely the article needed by farmers, and will be as cordially welcomed by their wives and daughters, as the best mowing and reaping machines have been by themselves. It is sold at $10, and was invented by E. L. Evans." It is named the "peacemaker," we presume, from the moral sunshine it is destined to diffuse among the manipulators of the laundry, and to end the terrors of "*washing day*."

Making Winter Butter.—I will give you our method of making winter butter. When the milk is brought in, it is put on the stove and scalded. It is then strained and put away for the cream to rise. We set the milk until sour; then skim off the cream—keep it until we get enough for a churning. Stir it every day, it keeps better, and is more alike. We use the old fashioned dash churn. We never used any other, and we think it good enough, although there may be others better. To every gallon of cream, we put in two large orange carrots, prepared by grating them into a pint of warm milk and then straining. Butter made in this way is as good as butter made in October. It looks yellow, and is not crumbly at all, but cuts as smooth as June butter. W. F. Hopkins.

Trial of Implements at Geneva.

Mr. Tucker—I have quite recently discovered an article in the January No. of the Cultivator, over the signature of H. L. Emery, calculated to deceive the public in regard to the utility of my Horse Power.

There seems to be one or two errors in the Report of the Committee on Agricultural Implements, to which he clings like a drowning man to a straw, and taking error for his data, he brings forth error which in due time will fall back upon the Emery Power with tremendous force. That the Emery Power is soon to become a matter of secondary consideration, is evident from the Report itself. And I shall be prepared to show the matter up in its true light, through the columns of a future number of the Cultivator.

I have endeavored to avoid controversy at all times, preferring that my machine should go before the public upon its own merits; but the incorrectness of the results produced by my friend Mr. Emery, in his Review, demands an explanation. E. W. BADGER.

Fly Creek, New-York, Feb. 15. 1853.—1t.*

Linnæan Botanic Garden and Nurseries,

Flushing, New-York.

WM. R. PRINCE & CO. intend selling off the trees from 50 acres of their Nurseries, the present spring, the ground being wanted for buildings. The collection is unrivalled, and nurseries that desire assortments of the very best articles, will never meet a more favorable opportunity. as all will be sold low for cash, or at credits suitable to the purchasers, where payment is sure. Priced Catalogues sent to post-paid applicants who enclose stamps. Also a wholesale Catalogue for nurseries. Those who desire large quantities, or special assortments, can send on their lists to us to be priced.

N. B—Scions of the six finest European Osiers, at $20 per thousand. March 1—m2t.

The Schoolfellow for 1853.

" The Best and Cheapest Juvenile Magazine in the U. S."

A New Volume beginning in February, 1853.

C. M. SAXTON, 152 Fulton St., New-York, begs leave to announce that he has made an arrangement with Mr. W. C. Richards, to publish his well known and favorite Magazine for Girls and Boys,

THE SCHOOLFELLOW,

Edited by W. C. Richards, and " Cousin Alice," (Mrs. Alice B. Neal.)

The work has been in existence for four years, during which time it has acquired a degree of popularity and fame unrivalled in the history of juvenile works, and has frequently been pronounced by the press, both North and South, " The best and cheapest Juvenile Magazine in the United States."

THE SCHOOLFELLOW

Is devoted to the instruction and gratification of the young of both sexes, and aims at the cultivation of the heart, as well as of the mind. It is an *original* Magazine, and its articles are prepared for its pages by many of the best writers for the young in the country.

THE PICTORIAL ILLUSTRATIONS

Of the work are engraved from choice and original designs, by skillful artists, and are unequalled in variety and beauty by those of any other juvenile magazine.

The numbers are issued punctually on the first of every month, and each contain 32 pages, and several engravings, printed on the finest paper and in the best style. Its price is

ONLY ONE DOLLAR A YEAR!

☞ Clubs are supplied on the following terms: Five copies to one address, $4; Ten copies, $7; Thirty copies $20; Fifty copies $30. All Postmasters are empowered and requested to make up " Clubs" upon these terms.

The *Schoolfellow* is not an experiment. Four years of popularity and success have stamped it already as a *fact*, and the undersigned undertakes its publication in this, the great metropolis of the country, with a conviction that it must and will have an unequalled degree of popular favor. The character of its Editors and Contributors, and Artists, is the best guaranty of its excellence, and excellence is the proper basis of popularity He hopes to revisit thousands of the domestic circles of his Agricultural readers in the pages of this beautiful Magazine for the young, and promises to do all in his power to make the visits of *The Schoolfellow* welcome and eagerly desired.

All business communications should be addressed, post-paid, to, C. M. SAXTON, 152 Fulton Street, N. Y.

Feb. 10, 1853—m1t.

New, Rare and Valuable Seeds.

NEW VARIETY OF SWEET CORN.

MESSRS. HOVEY & CO., *No. 7 Merchants Row, Boston*, would respectfully inform their friends and the public, that they have purchased the entire stock of the OLD COLONY SWEET CORN, raised by the Rev. A. R. Pope, and described by him in the Magazine of Horticulture, Volume XVI, page 529.

It is a true hybrid and the most remarkable variety ever produced. It was raised in 1847, from the Southern White Corn, impregnated with the early Sweet Corn of New-England. The ears are of remarkable size, containing *sixteen, eighteen or twenty*, and sometimes *twenty-four rows each.* In its productiveness it is unsurpassed, a single stock planted after the middle of June producing six ears. It is the richest, sweetest and most delicious corn known. An analysis of it, and several other sorts, by Dr. C. T. Jackson, shows that it is more abundant in saccharine matter than any other variety, its composition being " dextrine, sugar, and phosphate," while the common varieties contain considerable " oil and gluten."

It has been exhibited before the Massachusetts Horticultural Society for three years, and has not only received the commendation of the Society, but has been awarded the following prizes:

1850.	For a new variety of Sweet Corn,.........	$2 00
1851.	For a new variety of Sweet Corn, called the Old Colony,...............	8 00
	For superior specimens of the Old Colony Sweet Corn, Silver Medal,......	5 00
1852.	For fine specimens of do	2 00

The Committee on Vegetables, of the Massachusetts Horticultural Society, in their Report for 1852, remark, " That the Old Colony Sweet Corn, raised by Mr. Pope, we recommend as worthy of cultivation by all "

The Old Colony Sweet Corn, though not as early as the Common Sweet, is sufficiently so to produce a perfect crop in New-England. Two sowings, one in May and the other in June, will supply the table from July until frost. All who have eaten it, pronounce it the most luscious variety, and an invaluable addition to our esculent vegetables.

☞ Single Ears, 25 cents each. The trade supplied on reasonable terms.—Feb. 19.—Seow—3t—m1t

---

Valuable Potatoes for Sale.

THE subscriber offers the following valuable varieties for sale, a part of which are described in the last volume of the Transactions of the State Society.

This Society awarded him a special premium at the State Fair at Utica, and also $100 at their meeting at Albany during the present month, (Dec.,) as encouragement in these experimental efforts.

1st. *The Rough Purple Chili*, inported from South America, April. 1851, at a great expense. In yield, hardiness, and table quality, it has no equal. Price $10 per bushel.

This potato yielded me this year ninety-two from one, by measure; while to Mr. Delafield of Geneva, it yielded one hundred and twelve from one, by weight.

2nd. *Seedlings originated in* 1849. They are hardy, productive, and fit for the table. Price $3 per bushel.

Many of these have been tested this year, under the eye of the State Society, and have yielded from twenty to sixty-four, from one.

3d. *Seedlings of* 1852. These consist of many choice kinds, selected from four thousand two hundred varieties, grown mostly from seed balls of No. 1 and 2, above. This collection was made with great care in regard to hardiness, flesh, yield and mode of growth; and it is believed to afford a basis for the entire renewal of the potato crop in our country. Price $10 per bushel.

4th. *Potato seed—from the seed ball.* This was borne by No. 1 and 2 above. It has been proved, and is warranted to yield a large proportion of hardy, productive and shapely varieties. Price $1 per paper; each of which contains over one thousand seeds. These will be sent by mail, the postage to be paid by myself.

☞ Each parcel of potatoes ordered, will be put up with care, the kinds kept separate, and forwarded by express, canal, or private conveyance, as soon as the weather will permit, at the expense and risk of the purchaser.

Nos. 1 and 2 are advised for immediate field crops, and No. 3, for new sorts for the years following.

Persons passing through Utica, are invited to call and see specimens at the store of Wm. Bristol & Co., Druggists, No. 108 Genesee-street, or at the house of the subscriber, near the Insane Asylum. C. E GOODRICH.

☞ Orders answered for cash only.

References—The Officers of the State Ag. Society; John Delafield, near Geneva; J. P. Fogg, of the Agricultural Warehouse, Rochester; Wm. Bristol & Co., Utica; Chas. Tracy, Esq. New-York city; C. L. Whiting, Granville, Ohio.

Utica, Feb. 15.—2t.

Syracuse Nurseries,

Thorp, Smith, Hanchett & Co. Proprietors,

Syracuse, N. Y.

OUR nursery grounds, among the largest and most extensive in the country, are now covered with a splendid stock of FRUIT AND ORNAMENTAL TREES, SHRUBBERY, ROSES, &c. We therefore invite the attention of *Nurserymen, Dealers, and Amateurs,* and request them to call and examine our stock.

APPLES, PEARS, PLUMS, CHERRIES, PEACHES, AND APRICOTS, of all the standard sorts—stocky and well formed.

DWARF APPLES—On Doucain and Paradise stocks, one and two years old.

DWARF AND PYRAMIDAL PEAR TREES—Of all the best sorts—two and three years old—very fine and beautiful.

DWARF CHERRIES—Of all the standard and new sorts

GOOSEBERRIES—3,000 plants, of all the best Lancashire sorts—strong and very fine.

CURRANTS—Victoria, Cherry, White Grape, White and Red Dutch, &c.

RASPBERRIES—Large Fruited Monthly, Fastolff, Franconia, White and Red Antwerps; also Wilder, Cushing, and Orange, of Dr. Brinckle, of Philadelphia.

GRAPES—All the hardy sorts, including the Schuylkil Muscadel, as well as plants of all the best foreign sorts, in pots.

ORNAMENTAL TREES—Of fine size, including Scarlet Flowering Horse Chestnuts, Double Flowering do., Cut leaved do., Silver Abeles, Mountain Ash, Sugar Maples, Elms, Purple Beech, Gold Barked Ash, Weeping Cherries, Weeping Sophora, Beech and Ash, &c.

ROSES—One of the largest and richest collections in the United States, containing everything new and rare in the European collections—also the celebrated new, Double Yellow, frangrant, Climbing Rose "Augusta."

EVERGREENS—We have on hand, and are receiving largely this spring, of the rare sorts, as well as Norway Firs, Balsam do., European Silver do., Deodar and Lebanon Cedars, Weymouth and Australian Pines, Scotch, Corsican, and Laricio Pines, &c., &c.

PÆONIES—A large collection of both tree and herbaceous varieties.

DAHLIAS—150 varieties of all the good old sorts, with many fine new ones. The great fancy flower, *Wonderful*, and *Lilac King*, the gem of last season. Also, Flower of the Day, Admiral, George Glenny, Mrs. Hansard, Mrs. Wayland, Barsline, Seraph, Approbation, Anticipation, Miss Compton, &c.; old sorts, whole roots, 25 cents, per dozen $2. New varieties 50 cents each in pots in May—per dozen $4.50.

GREENHOUSE PLANTS—One of the best and largest collections, including almost every novelty, also the new fancy and scarlet GERANIUMS—HELIOTROPES—Reptans, Gem, Immortalite de Maria Louise and Corymbosum; HOYAS—Bella, Imperialis and Bidevelliana; FUCHSIAS—Madam Sontag, Dr. Gross, Alpha, Lord of the Isles, Don Giovanni, Clapton Hero, Psyche, Voltigeur, Dr. Jephson, &c., Lantana Eiringii, &c. &c.

SHRUBS—Veronica Andersonii, Gardenia fortunii, Lobelia fulgens insignis, Œschynanthus, Wigelia Rosea, Forsythea, Viridissima, Deutzias, Ribes Gordoni, Spireas, Loniceras, &c., &c.

PETUNIAS—A splendid collection of the finest sorts.

CARNATIONS AND PICOTEES—Named sorts $3 to $4.50 der dozen. Fine seedling Carnations, $1 per dozen, $6 per hundred.

CLIMBERS—Maurandias, Lophospermums, Loasas, Calestigia pubescens, Ipomeas, Cobeas, Manettias glabra and bicolor, Physianthus Albans, &c.

CHRYSANTHEMUMS—60 dwarf varieties; also the best large sorts

VERBENAS—A splendid collection of 70 varieties, including the splendid new ones—Montana, Parfume Madaleine, Mrs. Mills, Macrantha, Exquisite, &c., &c., and our *new seedling, Delicata Odorata*.

PHLOXES—Our collection is very large, having imported all the finest European varieties, among them the celebrated Roi de Leopold, Genl. Changarnier, Mycrophylla Superba, Macrantha, Mamselle Adam, Amande d'Artoise, Madam Henderson, Compte de Chambourd, Ne Plus Ultra, &., &c.

STRAWBERRIES—All the fine leading sorts, including many new ones.

HEDGE PLANTS—Buckthorn, Cedar, Privet and Osage Orange.

Stocks—Pear, French Quince, Mahaleb and Doncain.

All orders packed in the very best manner for transportation to any part of the United States.

Catalogues, with full descriptions, forwarded gratis to all *post-paid* applications, inclosing *one stamp.*

Syracuse, Feb. 3, 1852.—5—1tc1t.

Highland Nurseries, Newburgh, N. Y.

A. SAUL & CO., in inviting the attention of their patrons and the public in general, to their very extensive collection of FRUIT AND ORNAMENTAL TREES, SHRUBS, &c., &c., would respectfully inform them that the stock which they offer for sale the coming spring, is unusually fine, both as regards quality of trees and variety of kinds, &c.

The soil and climate of the Hudson Highlands, have rendered proverbial the success of the trees sent from here, to all parts of the Union, and the accuracy and precision so indispensable in the propagation of fruit trees, for which this establishment has long been celebrated, render errors in nomenclature of rare occurrence.

They have propagated in large quantities, all the leading standard varieties, which are proved best adapted for general cultivation, especially those recommended by the American Pomological Society; as well as all novelties both of native and foreign origin.

To particularize, within the limits of an advertisement, would be impossible; they refer to their general catalogue, a copy of which will be sent to all *pre-paid* applicants, on enclosing a Post Office Stamp.

The following comprises a portion of their stock, and are all of fine growth, viz:

PEARS—in 400 varieties, both standards on their own stock, for orchard culture; and on Quince for dwarfs, Pyramids and Quenouille for garden culture.

APPLES—in over three hundred varieties, both standards, and Dwarfs, also Cherries, both standards and dwarfs, Plum, Apricot, Peach, Nectarine, and Quince trees in every variety.

GRAPE VINES—(both native and foreign for vineries.) Gooseberies, (50 best Lancashire varieties.) Currants, Raspberry and Strawberry plants of all leading and known kinds, together with Seakale plants, Asparagus and Rhubarb roots, &c, &c.

ORNAMENTAL TREES, Shrubs and Vines, both deciduous and evergreen, suitable for street and lawn planting, embracing all the new and rare Conifers, Weeping trees, and Shrubs of recent introduction.

ROSES—in every variety, including Hybrid Perpetual, Hybrid Bourbon, Hybrid China and Hybrid Damask; Prarie, Boursalt, Ayrshire, and other climbing and garden varieties, as well as the more tender; Tea, China, Bengal, Bourbon, and Noisette kinds.

HERBACEOUS PLANTS.—A large collection of Pæonias, Phloxes, Campanula, Penstemon, Œnothera, &c., &c.

DAHLIAS and bedding plants, for the parterre and flower garden, in large quantities and variety.

HEDGE PLANTS—100,000, 2 year old, Buckthorn and Osage Orange plants; Arborvitæ for screens, &c., &c.

Dealers and *Planters* of trees, on a large scale, will be dealt with on the most liberal terms.

Newburgh, Feb. 20th, 1853.—mar—2t

The Stowell Ever Green Sweet Corn.

A FEW bushels of this new and valuable variety, from seed raised by Professor J. J. Mapes, L L. D., for sale, per bushel, $10; peck, $5; half peck, $3; quart, $1; sent by express to any part of the country, on receipt of the money by mail. This is beyond all doubt the best and most prolific kind of Sweet Corn, ever grown. No Farmer should be without it. One of the advantages claimed for this corn by Prof. Mapes, is that it may be kept *green and fresh all the year round*. The subscriber's limited experience, however, does not enable him to endorse this. Address, post-paid,

ALFRED E. BEACH,
White Plains, Westchester Co., N. Y.

[From the "Working Farmer," September, 1851. By Professor Mapes]

"We have long been convinced, that sweet corn would prove superior as green fodder to any other; and the only objection urged against its use, has been the smaller yield per acre, compared with other kinds. We are now prepared to recommend the use of Stowell's Ever Green Corn for this purpose. The stalks are nearly as sweet as those of sugar-cane, and *double the quantity* can be grown to the acre to that resulting from ordinary sweet corn.

[Prof. Mapes, in the "Working Farmer," December, 1851, gives the following directions for preserving the Stowell Evergreen Sweet Corn:—]

"The ears should be gathered when fully ripe, and the husk should be tied at the nose (silk end,) to prevent drying, when *the corn will keep soft, white, and plump for more than a year*, if in a dry and cool place. At the dinner of the Managers after the Fair of the American Institute, last year, we presented them with this corn of two successive year's growth boiled, and there was no perceptible difference between the two. This year we sent to the Fair, one stalk, containing eight full and fair ears, and could have sent many hundred stalks of six ears each." Jan. 27, 1853—1t*c1t*

Basket Willow.

CUTTINGS of the best kinds of basket willow, (with directions for cultivation, for sale at $5 a thousand, by WM. H. DENNING, Fishkill Landing, Dutchess County.

March 1—m2t.*

Evergreen and Deciduous Trees.

THE subscriber is prepared to furnish to order, American Arbor Vitæ, American Larch, or Hackmatack, Silver Fir, Red and Black Spruce, American Hemlock and White Pine.

Also Elm, Maple, Birch, Beech, Ash, and High Cranberries, at very low prices—6 inches to 6 feet high—faithfully taken up and packed, so as to bear rough handling, and go to any of the Western and Southern states—from Boston, by railroad and boats. For terms, &c., address, post-paid,

WM. MANN, Bangor, Me.

Feb. 10, 1853.—m3t.

Mount Hope Nurseries.

FRUIT AND ORNAMENTAL TREES.

ELLWANGER & BARRY desire to call the attention of nurserymen, dealers, and planters, to the immense stock of trees now on their grounds, embracing Fruit Trees of every description, viz:

STANDARD APPLES, PEARS, PLUMS, CHERRIES, PEACHES, &c., on free stocks, for orchards, vigorous and well formed.

DWARF AND PYRAMIDAL PEAR TREES, on quince stocks. About 50,000, embracing every fine variety that can be so worked, two year old trees, low branched, vigorous and beautiful.

DWARF AND PYRAMIDAL CHERRIES, on Mahaleb stocks. Fine one, two, and three year old trees, well branched and finely formed.

DWARF APPLE TREES, on Paradise and Doucain stocks. Beautiful two year old trees, with heads for immediate bearing—besides vigorous yearlings.

GOOSEBERRIES.—Large Lancashire sorts. Strong plants for immediate bearing.

CURRANTS.—Including the *Cherry*, *Victoria*, *White Grape*, and many other new and fine sorts. See our catalogue.

RASPBERRIES.—The new *Large fruited Monthly, Fastolff, &c., &c.* A complete collection of all desirable varieties.

GRAPES.—Hardy, native sorts—*Isabella*, *Catawba*, *Clinton*, *&c.*—strong two and three year old vines. Thirty varieties of Foreign Grapes, for vineries—strong, thrifty plants, in pots.

STRAWBERRIES of all desirable varieties, and all other fruits cultivated.

RHUBARB.—Genuine *Myatt's Victoria*, *Myatt's Linæus*, *Mitchell's Royal Albert*, *Downing's Colossal*, and hybrids of the above, of our own raising from seed, quite equal to any of them.

The entire fruit department is under our own personal supervision. The best quality of stocks is used, and the most scrupulous attention given to ensure accuracy. We flatter ourselves that no nursery collection can offer a stronger guarantee to purchasers in this respect. The stock is all grown on new, fresh soil, and is healthy, well matured, and hardy. We ask purchasers to examine it.

ORNAMENTAL.—Large trees, for streets, parks, &c., such as *Horse Chestnuts*, *Silver Maples*, *Sugar Maples*, *Snowy Abeles*, *Mountain Ash*, *Elms*, and *Tulip Trees*, in large quantities cheap.

RARE ORNAMENTAL LAWN TREES, embracing the most novel, remarkable, and beautiful trees and shrubs, both deciduous and evergreen, that can be grown in our climate. For particulars we must refer to the descriptive catalogue.

ROSES.—One of the richest collections in the country, including the newest and best European varieties, selected by us in person, last summer.

BULBOUS ROOTS, imported annually from Holland.

DAHLIAS.—The new English and French prize sorts of 1851-52, besides fine older ones.

All articles packed in the best manner, and forwarded to any part of the United States, Canada, or California.

Orders strictly complied with in every particular.

The following catalogues are sent *gratis* to all who apply and enclose stamp to cover postage, which must be prepaid:

No. 1. A Descriptive Catalogue of Fruits.

No. 2. A Descriptive Catalogue of Ornamental Trees, Shrubs, &c.

No. 3. A Catalogue of Dahlias, Fuchsias, Chrysanthemums, and bedding plants.

No. 4. A Wholesale Catalogue, for Nurserymen and others who wish to purchase largely.

Mount Hope Nurseries, Rochester, N. Y.—7—2t—m1t.

Evergreen Trees and Shrubs.

THE following Evergreens can be supplied by the quantity, at low prices:

Norway Spruce, from 6 inches to 2 feet.
American White Spruce, 2 to 3 feet.
Balsam Fir, 2 to 4 feet.
Austrian Pine, 1 to 3 feet.
Scotch Fir, 1 to 3 feet.
Red Cedar, 1½ to 2 feet.
American Arbor vitæ, 1 to 2 feet.
Chinese Arbor vitæ, 2 to 3 feet.
Deodar Cedar, 1 to 1½ feet.
Chili Pine, (Auracaria imbricata,) 12 to 18 inches.
Japan Cedar, (Cryptomerica Japonica, 1 to 5 feet.
Lofty or Bhotan Pine, (Pinus excelsa,) one foot.
Himalayn Spruce, (Abies morinda,) 6 to 12 inches.

And many other rare species and varieties, forming one of the most complete assortments of Conifers in the United States. ELLWANGER & BARRY, Mount Hope, Nurseries, Rochester, N. Y.

Feb. 12—7—2t—m1t.

Grass Seeds.

TIMOTHY, Red and White Clover, Lucern, Ray Grass, Kentucky Blue Grass, Orchard Grass, Red Top, and Lawn mixed grass, all of the best quality. For sale by

LONGETT & GRIFFING, No. 25 Cliff St.,
March 1—2t. near Fulton, New-York.

Coldenham Nursery,

Near Newburgh, Orange County, N. Y.

To Nurserymen, Fruit Growers and others.

THE subscriber solicits the attention of all Tree-planters, Nurserymen and Dealers, to his present stock of FRUIT TREES, which is much larger than he has ever before offered. It embraces among others,

55,000 APPLE TREES,

from 7 to 11 feet high, and of thrifty growth, from $12 to $15 per hundred, and from $100 to $125 per thousand; among which are the following varieties: Summer—Drap d'Or, Early Harvest, tart, Early Juneating, Early Crofton, Early Sweet Bough, Red Astracan, Early Red Bough, and Summer Rose. Autumn—Alexander, Beauty of Kent, Fall Harvey, Fall Pippin, Fall Bough, Gravenstein, Jersey Sweet, Maiden Blush, Pound Sweeting, Porter, Rambo, Red Doctor, Detroit, Straat. Winter—American Golden Russett, Baldwin, Danvers Winter Sweet, Cass or Cos, Court of Wyck, Pippin, Domine, Dutch Mignonne, Esopus Spitzenburgh, Flushing Spitzenburgh, Red Gillyflower, Golden Fragrant, Green Domine, Gloria Mundi, Hartford Sweet, Hubbardston Nonsuch, Jonathan, Lady Sweeting, Lady A., Minister, Marygold, Michael Henry's Pippin, Moose, Newtown Pippin, Northern Spy, Peck's Pleasant, Pennock, Red Winter, Ramsdill's Sweet, Pearmain, Rhode Island Greening, Roxbury Russett, Large Russett, Late Russett, Swaar, Seek-no-further, Tallman Sweeting, Vandervere, Golden Bellflower, Crow Egg, Tiffi's Sweet, Sweet Pippin or Hog Island Sweeting, Willis' Sweeting, Pomme Royal, &c., &c.

Also, a large assortment of PEAR, CHERRY, PEACH, PLUM, APRICOT and QUINCE TREES, *Grape Vines*, *Gooseberry*, *Currants*, *&c.*, *&c.* A large number of

THE GREAT BIGARREAU CHERRY,

worked from the original tree, an outline and description of which was given in the "Horticulturist" of January, 1851. In an extract from that article, the lamented A. J. Downing says:—"The Great Bigarreau, is unquestionably the largest and most beautiful of all cherries, and appears to be scarcely at all known to pomologists. A foreign variety—perhaps more distinct than any other large cherry, in its foliage, growth and the size, excellence and color of its fruit, which is equal to the Black Tartarian in flavor, and sursurpasses it in beauty and productiveness, certainly should not be unknown to American pomologists. Lindley M. Ferris, Nurseryman, Coldenham, Orange co., N. Y., first astonished us by bringing branches of this tree in full, laden with superb fruit, two years ago. Supposing we should be able to identify it with some foreign variety, we made a drawing and description of it at the time, and waited to make further research on the subject. So far, our labor for two seasons has been in vain, to identify it with any other sort, and we now publish the description to introduce what we think the most magnificent of Cherries, to the notice of our fruit growers." Price 50 cents a piece, or $35 per hundred. All other cherries 30 cents each, or $25 per hundred.

Trees packed in moss, with great care, for transportation, and delivered at Newburgh, from which place boats go daily, to New-York, Albany and Troy. Catalogues will be furnished to applicants. LINDLEY M. FERRIS.

February 3, 1853.—5—1c1

Gooseberries, Fastolf Raspberries, &c.

JOHN SAUL, Washington, D. C., offers the following for for sale :—

4,000 Lancashire Gooseberries, comprising all the leading varieties, such as Crown Bob, Roaring Lion, Red Warrington, Champagne, Leigh's Rifleman, Parkinson's Green Laurel, Woodward's Whitesmith, &c. The plants are very vigorous and thrifty, and true to name.

4,000 Fastolf Raspberries, strong canes, warranted the genuine variety.

300 Raby Castle or Victoria Red Currant—the largest and best. 300 Wilmot's large Red do 500 White Dutch do.

300 Black Naples do. ☞ The above at very reasonable prices.—March 1, 1852.—1t

Thorough Bred Devons For Sale.

THE undersigned offer for sale the following :—

BULLS.—1st. "*Uncas*,"—calved March 19th, 1851. 1st prize at the show of the American Institute, 1852. Sire "Meguuticook ;" grand-sire, "Prince Albert," (102) ; dam, "Nonpareille, by Lord Lynedock."

2d. "*Red Jacket*"—calved May 5th, 1852. 1st prize as calf at show of American Institute, 1852. Sire, "Meguuticook ;" grand-sire, "Prince Albert," (102); dam, "Meadow Lilly," by "Baronet," (6); g. d. "Helena."

3d. "*Osceola*"—calved September 11th, 1852. Sire, "May boy," (71); grand-sire, "Duke of York," (37); dam, "Mossrose," by "Duke of York," (37); g. d. "Nonpareille," by "Lord Lynedock."

4th. "*Dacotah*"—calved October 29th, 1852. Sire, "Mayboy," (71); grand sire, "Duke of York," (37); dam, "Redbud," by "Meguuticook;" g. d. "Nonpareille," by Lord Lynedock.

HEIFERS.—1st. "*Rose*"—calved October, 1849; bred by Mr. R. C. Gapper, Canada West. Sire, "Major;" grandsire, "Billy;" dam, "Cherry," by "Billy;" grand-dam, "Beauty."

2d. "*Gazelle*"—calved October, 1850; bred by Mr. R C. Gapper, C. W. Sire, "Rob Roy;" grand-sire, "Santa-Anna;" dam, "Cherry," by "Billy;" g. d. "Beauty."

These animals are of the best blood to be found in England. "Meguuticook," "May-boy," and "Nonpareille," having been imported from the herd of George Turner, Esq., and "Helena," from that of James Quartly, Esq., by ourselves; while "Billy" and "Beauty," were imported by Mr. Gapper, from that of James Davy.

With the rest of our herd, they may be seen at all times, on our farm, 3 miles from the Rhinebeck station of Hudson River Railroad.

The figures in brackets refer to the English Herd Book.—Animals delivered, free of expense, in Albany or New-York.

W. P. & C. S. WAINWRIGHT.

Rhinebeck, Dutchess co., N. Y.—March 1—m3t

Balsam Firs, Arbor Vitæ, and other Forest Trees.

HENRY LITTLE & CO., of Bangor, Maine, will furnish any number of Evergreen and other Forest Trees, taken up with *earth on the roots*, with the greatest care, and sent to any part of the United States by steamboats or railroads, and carefully packed in large boxes, at short notice, at the following prices, viz:

From 6 inches to 1 foot, at 1 cent, or $10 per 1000.

From 1 foot to 2 feet, at 1½ cents, or $15 per 1000.

The above prices refer more particularly to Balsam Fir and Arbor Vitæ Trees.

We charge what the boxes cost, but nothing for packing.

For three years past, the trees we have procured and sent to a distance, have lived generally, and have given good satisfaction. Evergreens will not live unless taken up with great care. Bangor, Feb. 1, 1853—m3t

North River Agricultural Warehouse,

No. 53 Courtland-street, New-York.

GEORGE H. BARR & CO., invite the attention of Farmers, Planters and others, to their large and varied assortment of Agricultural Implements, Manures, Seeds, &c., &c., all of which will be furnished at the lowest prices.—Their assortment includes

PLOWS—All the improved kinds by the most approved makers.

HORSE POWERS—Of all kinds and sizes, with and without Thrashers, &c.

CORN SHELLERS—All the improved kinds, and some of recent introduction.

STRAW CUTTERS—Of all sizes and kinds, for hand and horse-power

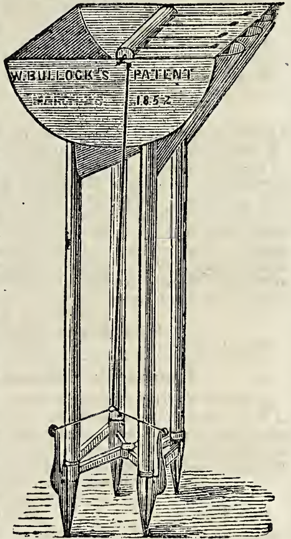
CORN AND COB CRUSHERS—Of all kinds and sizes.

FANNING MILLS, Cultivators, Harrows, Agricultural Barometers, Churns of all the approved kinds, Rakes, Hoes, Forks, and a general assortment of Horticultural and Garden tools. Feb. 1—2t

Bullock's Patent Seed Planter,

An entirely New Article, specially adapted to the Planting of Corn, Beans, and Garden Seeds.

A HIGHLY useful implement for the agriculturist, which recommends itself to the interest of every farmer in the country, both in the saving of labor, and the increased yield of his crop, abundantly rewarding the trifling investment. Patented Nov. 2, 1852. Price $4.



One man will plant an acre of Corn in 2½ hours, putting an exact number of grains in each hill, and at equal distances apart, thus * * * * in addition to the saving of time, which is two-thirds, the gain in the crop on five acres, would more than pay for six machines.

It has been shown by actual experiment, in planting alternate rows of corn on a field with the planter, in opposition to the old system. The rows planted by the planter would easily produce seven bushels to the acre increase, over the old plan. So every farmer who desires a large crop, will avail himself of the advantages offered in the use of this, one of the most valuable inventions in agriculture.

Read the remarks of the *American Artizan*, an agricultural paper of New-York :

"Bullock's Patent Seed Planter is one of the greatest improvements in agricultural implements that has ever come to our notice. It is for planting seed in hills or drills; is carried in the hand like a walking cane, and every time it is set down it plants a hill, planting the seeds at equal distances apart; a saving of at least one-half the time, and a great increase of crops, in consequence of the seeds all being separated, thereby allowing each stalk sufficient soil for its roots, and a free circulation of light and air, and lastly, the facilities for cultivating, the hills being perfectly even, the plow or cultivator can be worked close to the hill, thereby saving all necessity of hoeing.

For County Rights or Machines, apply to A. T. HOLMES, (46 Hudson St.,) Agent for the County of Albany.

Albany, Feb., 1853.—7—1t—m1t.

Super-Phosphate of Lime.

THIS extraordinary fertilizer, the effects of which as a manure and general assistant to soils, has proved itself invaluable to the agriculturist. This most important constituent of the soil is being daily removed and taken up by plants in solution, and unless such substance be returned, fertility must decrease, and land become poor. Its promoting and pushing power of growth, in giving strength to plants while in their young and tender state, fortifying them for early maturity, and enriching qualities, excells over all other manures. It is some ten *years* since its first introduction in England, where also a patent right was granted the first *maker* after the experiment *was* proved of its magic effects on land. The progressive high repute of its properties has caused the demand each year to increase, and at the present time some thousands of *tons* are annually sold to the farmers. The subscriber has had much experience in the manufacture of this manure in Europe, which leads him to suppose he stands unequalled by any other more able competitor. Some considerable quantities were disposed of last season, the beneficial result of which *has caused* all that watched its *power* to send orders for delivery in the coming spring. Being in a perfect powder, it is at once easy in handling, may be *sown* with seed, broadcast, or drilled in. To prevent deception, henceforward all bags or other packages will be branded with the maker's name. It is on sale at the following agricultural warehouses in New-York.

Longett & Griffing, 25 Cliff Street, N. Y., and R. L. Allen, late A. B. Allen's, 189 Water Street, N. Y., where purchasers may be sure of obtaining a chemically pure and genuine article. Enquire for De Burgh's No. 1 Super-Phosphate of Lime. March 1.—m3t.

Manures.

PERUVIAN GUANO, 2¼ to 2½ cents per pound.
BONE DUST, when taken in equal quantities, $2 25 per barrel.
BONE SAWINGS, separately, $2.50 per barrel.
PLASTER, $1 to $1 25 per barrel.
POTASH, 3¼ to 4 cents per pound.
CHARCOAL, $1 per barrel.
SULPHURIC ACID. 2¼ to 2½ cents per pound.
SUPERPHOSPHATE OF LIME, 2¼ cents per pound.
WOOD'S RENOVATING SALTS, one cent per pound.

For sale at the State Agricultural Warehouse, No. 25 Cliff-street, New-York. LONGETT & GRIFFING.
Feb. 1—ctf.

Seeds.

THE undersigned being aware of the strong prejudice existing among Market Gardeners and others, in relation to seeds as usually sold by Agricultural Warehouses, have engaged the services of Mr. James Hogg, so long known to the public as a competent Seedsman, and have placed this department of their business under his control. They have also made arrangements with Prof. Mapes, and others engaged in seed raising, to furnish them with an assortment of the choicest seeds. Their Foreign and California arrangements will ensure, in addition to garden seeds, a fine assortment of Bulbs, Flower Seeds, &c., &c.

GEO. H. BARR & CO.,
North River Agricultural Warehouse,
Feb. 1—2t 53 Courtland-street, N. Y.

Mammoth Nutmeg Potato.

A FEW SACKS of these superior Potatoes may be had for seed of the subscribers. These Potatoes have never been diseased, and are as hard and firm when one year old, as when dug. They ripen in June, being among the earliest known variety. Price $2 per bushel.

North River Agricultural Warehouse,
53 Courtland-street, N. Y.,
Feb. 1—2t GEO. H BARR & CO.

Manures.

FERTILIZERS of all kinds for sale by the subscribers. IMPROVED SUPER-PHOSPHATE OF LIME, Superphosphate of Lime—both the above made after the recipe of Prof. Mapes.

PERUVIAN GUANO, Sulphuric Acid, Bone-Dust, Potash Sparlings, Poudrette, Plaster of Paris, &c., &c.

GEO. H. BARR & CO.,
Feb. 1—2t 53 Courtland-street, N. Y.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y. Braintree, Mass.

For Sale.

THE subscriber offers for sale thirty Merino Ewes, and four Buck Lambs. The lambs are one-half blood of the "Atwood" breed. The sheep are pronounced by manufacturers, to be the most profitable in the State.

LEVI S. WELLS.
Feb. 1—m2t. New-Britain, Hartford Co., Ct.

Short Horns.

I HAVE on hand and for sale, two Short Horn bull calves—one in color red and white, the other chiefly red, the get of *Splendor;* both large, and possessing much *quality, style, symmetry and substance.* JNO. R. PAGE.
Sennett, Cayuga Co., N. Y., Feb. 1—m2t.

Wanted.

A PERSON who understands "thorough draining," as practiced in England—especially as applied to swamps. None need apply, except such as have a practical knowledge of the subject, and are competent to undertake a work of the kind Address or apply in person to F. SHELDON, No. 40 Wall-street, New-York.—Feb. 1.

Valuable Farm For Sale.

THE subscriber offers for sale his Farm, containing 108 acres of first-rate land, situated four miles north of the village of Keeseville, Clinton county. Upon it is a good dwelling house, with convenient out buildings; well fenced into convenient sized fields for cultivation, and for beauty of location, is not surpassed by any in Northern New-York.

Peru, Feb. 1, 1853—6t WILLETS KEESE.

Wanted.

A MAN well qualified to take charge of a farm and vegetable garden. J. H. WILLARD,
3—4tc2t Troy Female Seminary.

FOWLS.

THOROUGH bred Shanghae Fowls for sale, (both the White and Buff varieties.) Also Eggs for hatching. Inquire of H. W. DWIGHT, 818 Broadway, Albany.
Jan. 1—wtf.

United States Agricultural Warehouseand Seedstore.

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine—also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, arm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers Jan 1, 1853—m&wtf

---

The Lodi Manufacturing Company

OFFER their Poudrette this season at their usual rates, viz: One barrel, $2.00—2 barrels, $3.50—3 barrels, $5.00—5 barrels, $8.00—6 barrels, $9.50, and any amount over 6 barrels $1 50 per barrel. Delivered free of cartage or other expense, on board of vessel or railroad, in the city of New York. ☞ A small trial requested.

This article is so well known, and so universally approved of as a manure for corn and garden vegetables, that an extended advertisement is scarcely necessary. The Company will send free of cost, to any one wishing further information, a pamphlet containing instructions for use, &c.—also certificates from Hon. Daniel Webster, A. J. Downing, and others, together with other interesting matter. Orders sent by mail, enclosing money, will be promptly acknowledged. All communications must be post-paid, and addressed to the "Lodi Manufacturing Company, New-York," office 74 Cortland Street. Jan. 1—m5.w5t

---

Isabella Grape Vines,

OF proper age for forming vineyards, cultivated from, and containing all the good qualities which the most improved cultivation for over fourteen years has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for 4 years, as will enable them to cultivate the grape with entire success, provided their locality is not too far north. All communications addressed to R. T. UNDERHILL, M.D., New-York, or Croton Point, Westchester Co., N. Y., will receive attention. The additional experience of two past seasons, gives him full assurance that by improved cultivation, pruning, &c., a crop of good fruit can be obtained every year, in most of the northern, and all the middle, western, and southern states.

N. B. To those who take sufficient to plant four acres, as he directs, he will, when they commence bearing, furnish the owner with one of his vinedressers whom he has instructed in his mode of cultivation; and he will do all the labor of the vineyard, and ensure the most perfect success. The only charge a reasonable compensation for the labor. R. T. U.
Jan. 13—w9m2t.

THE AMERICAN PHRENOLOGICAL JOURNAL—VOL. XVII. for 1853, devoted to Science, Literature, and General Intelligence. Published by FOWLERS AND WELLS, No. 131 Nassau-st., New-York.

PHRENOLOGY, the science of MIND, includes in its wide domain a knowledge of all the faculties, passions, and powers of the HUMAN SOUL; all the bodily organism over which the soul presides, with its structures and functions; and all the realm of nature to which man is related, and with which he should live in harmony. It includes a knowledge of man and his relations to God and to the universe. It is thus a central and comprehensive science, beginning with the CONSTITUTION OF MAN, and ending with all his possible relations, SPIRITUAL and MATERIAL. It is thus that SELF KNOWLEDGE is the basis of all knowledge.

THE PHRENOLOGICAL JOURNAL, therefore, has a sphere that is universal. All philosophy, all science, all art, all the details of practical life, are legitimate subjects of discussion in its columns. The experience of twenty years has not been lost to us; nor, amid the progress of this wonderful age, have we idly lagged behind. THE JOURNAL will endeavor to be still a little in advance of the age, and of its own former efforts.

PHRENOLOGY, the science which unfolds to man the laws of his own Physical, Moral, and Intellectual Being, will still command our first attention; all other subjects being, in fact, but applications and illustrations of the principles of this science. We shall illustrate the varieties of cerebral development by spirited and truthful ENGRAVINGS of striking specimens of Human Nature, in its highest and lowest, its harmonious and discordant, its symmetrical and grotesque developments.

YOUNG MEN, about launching forth upon the activities of life, and anxious to start right and understand their course, will find the Journal a friend and monitor, to encourage them in virtue, shield them from vice, and to prepare them for usefulness and success in life. The various occupations will be discussed in the light of Phrenology and Physiology, so that every one may know in what pursuit he would be most likely to succeed.

THE MECHANIC, the Farmer, the Professional Man, the Student, the Teacher, and the Parent, will find each number of the Journal an instructive and valuable companion.

The Phrenological Journal is published on the first of each month, at ONE DOLLAR A YEAR. Now is the time to subscribe. Address all letters, post paid, to

FOWLERS & WELLS,
Clinton Hall, No. 131 Nassau-st., New-York.

This Journal is doing more to benefit mankind, than all the gold-diggers in the two hemispheres. It is only $1 per year, and is worth ten times that in any family.—*Cleveland Commercial.*

Do you wish to acquire the most important knowledge to be learned in the world? Then know thyself. To do this, send for the Phrenological Journal and read it. No other work now published can be so useful to its readers, and especially the young men and young women.—*New Era.*

A journal containing such a mass of interesting matter, devoted to the highest happiness and interest of man, written in the clear and lively style of its practiced Editors, and afforded at the "ridiculously low price" of One Dollar a Year, must succeed in running up its present large circulation to a much higher figure.—*New-York Tribune.*

☞ Clubs may be made up, and single subscriptions sent in to the publishers at once, for the New Volume. AGENTS WANTED. Feb. 1, 1853—m2t.

Devon Cattle.

THE subscriber offers for sale four full blood Devon Cattle, one full blood two-year old Bull, and three Bull Calves. The Cows sprung from the stock of the Messrs. Hurlbut's, which is well known for its goodness and purity of blood.

Address L. H. COLBY, Scipioville, Cayuga co., N. Y.
3—2tc2t

$500 IN PREMIUMS.

Special Announcement.

IN order to bring the magazine business back to the old channel of *the mails*, under the reduced postage, the publisher of

GRAHAM'S MAGAZINE

offers premiums amounting to FIVE HUNDRED DOLLARS to the Postmasters or residents of any post-towns in the United States, who will send the largest number of subscriptions, *through the mails* prior to the *first of July*, 1853.

First Premium, $200 for the Largest Club.
Second Premium, $150 for the Second Best.
Third Premium, $75 for the Third Best.
Fourth Premium, $50 for the Fourth Best.
Fifth Premium, $25 for the Fifth Best.

And to the TEN next largest a splendidly bound copy of GRAHAM, for one year, with five-dollar binding.

The list of the competitors will be published complete at that time, so that the utmost fairness may be manifest. A statement will also be published on the 10th of June, of those towns which have entered into competition, with the number of subscribers sent from each, up to that time.

The Books of the office will also be subject to the inspection of competitors, and every evidence of *good faith* furnished.

THE TERMS ARE—

Single subscribers, ...	$3
Six subscribers, one year,...	10
Ten " "	16
Thirteen " "	20

Single subscribers may be added, at any time, at the rate of the first club sent.

Competitors need not confine themselves to one post-town, but the names must be forwarded by the competitor *himself*, whether from one or more towns, so as to prevent confusion.

Address, GEO. R. GRAHAM,
134 Chestnut street, Philadelphia.

P. S.—We presume that no Postmaster, with whom we have done business, nor any Editor with whom we exchange, will for a moment doubt, that the statements set forth, as above, *will be lived up to, to the letter, in all respects.* G.
Feb 1—m3t.

Albany Drain Tile Works.

No 60 Lancaster Street—West of Medical College, Albany.

THE subscriber has now on hand, Draining Tile of the following descriptions. Prices reduced.

HORSE SHOE TILE.

5½ inch Rise, or 4½ inch Calibre, ...	$18 00 pr. 1000.
4½ " " 3½ "	15 00 "
3½ " " 2¾ "	12 00 "

SOLE TILE.

4½ inch Rise, or 3½ inch Calibre, ...	$18 00 pr. 1000.
3½ " " 2¾ "	12 00 "

These Tile are over one foot in length, and are so formed as to admit water at every joint, draining land from 12 to 20 feet each side of the drain—being the cheapest and most durable article used.

Tile sufficiently large for drains around dwellings, at $4 and $8 per 100 pieces. Orders from a distance will receive prompt attention.

Albany, April 1, 1852—tf. JOHN GOTT.

New and Important Insurance.

Northern N. Y. Live Stock Ins. Co., Plattsburgh N. Y.

INCORPORATED by the Legislature of the State of New-York, July, 1851. Horses, Cattle, and all kinds of Live Stock insured against Death, by the combined risks of Fire, Water, Accidents, Diseases, &c CAPITAL, $50,000.

GEORGE MOORE, Plattsburgh, Sec'y.
I. C. MIX, Fort Ann, Gen. Agent.
October 13, 1851.

This company are now organized and ready to receive applications for insurance. It is confidently believed that the owners of valuable animals will avail themselves of the advantages offered by this mode of protection. If fire, life and marine insurances are proper and expedient, so is live stock insurance: the reasons for insurance are equally applicable to all.

For terms please apply to Company's Agents.
Plattsburgh, July 1—tf.

Colman's European Agriculture.

EUROPEAN AGRICULTURE, from personal observation, by HENRY COLMAN, of Massachusetts. Two large octavo vols. Price, when neatly bound, the same as published in Nos., $5. For sale at the office of THE CULTIVATOR.

Contents of this Number.

On the Progress of Improvement, ... 73
Plan for an Agricultural College, ... 74
Use of Lime as Manure—Culture of the Potato, by P. Pratt—Culture of the Basket Willow, by C. N. Bement, ... 77
Draining and Pigeon Weed, by John Johnston, ... 78
The way to get a Team for Subsoiling, by S. E. Todd—Reapers in Scotland—Results of Trials, ... 79
Harvesting Corn, by Samuel F. West,.... 80
Portable Forge—Improvement in the Geddes Harrow, by H. B. Cropsey—Emery's Mowing Machine, .. 81
Culture of the Hop, by An Otsego Hop Grower,.... 82
Culture of Indian Corn, by John Moore,........... 83
United States Ag. Society—Annual Meeting,........ 84
New-York State Ag. Society—Annual Meeting,..... 84
Winter Exhibition of the N. Y. S. Ag. Society,...... 85
Virginia State Ag Society—County Ag. Societies, ... 86
Answers to Inquiries—Information Wanted, ... 87
Notes about Grapes—Plans of Flower Gardens, ... 88
Rose Devouring Insects, by F. McKay,. 89
Notices of Fruits—Influence of Manuring on Fruit Trees, by J. Hamilton,.......................... 90
The two Earliest Peaches—The Stanwick Nectarine—Culture of the Raspberry, by J. M. Ward,...... 91
The English Russet—Securing Grafts—Hardy Climbers, ... 92
Training Steers—Saving Fodder—Apples for Stock—Tumors on Cow's Udders,...................... 93
Young Black Hawk—Duration of Gestation in Animals. 94
Breaking Steers—Oxfordshire Sheep, ... 95
Notes for the Month, ... 96

ILLUSTRATIONS.

Port. Forge—Ged. Harrow, 81
Emery's Mower,......... 82
Plans of Flower Gardens, 89
Young Black Hawk..,. 94

Fertilizers.

GENUINE *Peruvian Guano*, fresh from ship; just imported.

Super-Phosphate of Lime, a superior article, the best in this market.

Bone Dust, ground fine, and Sawings.

Poudrette, of the best manufacture.

Plaster of Paris, ground and in barrels.

R. L. ALLEN. New-York Agricultural Warehouse and Seed Store, 189 and 191 Water st., N. Y. March 1—tf.

Choice Garden Seeds and Flowers.

A CHOICE selection of the best early, middle, and late Garden Seeds, fresh imported from Europe, and grown in this country, expressly for me.

Flower Seeds—A fine assortment of all the best sorts.

R. L. ALLEN, New-York Agricultural Warehouse and Seed Store, 189 and 191 Water St., N. Y. March 1—tf.

Agricultural Implements.—Field Seeds.

THE subscriber, occupying three large stores, which are filled with Agricultural Implements, asks the attention of the public to the most numerous assortment ever yet offered in New-York. Among these are Plows of more than a hundred different kinds, Harrows, Rollers with iron sections, Seed Sowers and Corn Planters, Cultivators, Reaping and Mowing Machines, Horse Powers, &c.

Field Seeds—Lucern, Ray-Grass, Timothy, Clover, Belgian Carrot, Sugar Beet, Mangel Wurzel, Ruta Baga, Early Potatoes, &c.

Garden and Flower Seeds of the choicest sorts.

Peruvian Guano and other Fertilizers. R. L. ALLEN,
New-York Agricultural Warehouse and Seed
March 1—tf. Store, 189 and 191 Water St., N. Y.

Horticultural Implements.

PRUNING Shears, and all other implements used in the Conservatory, Flower and Fruit Garden.

Hand Plows and Cultivators, Rollers, Trowels, Scufflers, Hoes, Shovels, Spades, Rakes, Seed Sowers, and all other implements, of the newest and most improved kinds, for the Kitchen Garden. R. L. ALLEN,
New-York Agricultural Warehouse and Seed
March 1—tf. Store, 189 and 191 Water St., N. Y.

Choice Vegetable Seeds.

A LARGE assortment, raised expressly for our sales.
LONGETT & GRIFFING, No. 25 Cliff St.,
March 1—2t. near Fulton, New-York.

Improved Sub-soil Plow.

THIS Plow requires less team than any other, and therefore disintegrates the soil more deeply, and at less cost. For sale at the manufacturer's agents, No. 25 Cliff St., near Fulton, by LONGETT & GRIFFING, New-York.
March 1—2t.

Prouty & Mear's Plow.

A LARGE assortment of these celebrated Plows can be found at the North River Agricultural Warehouse and Seed Store, 34 Cortland Street, New-York.
March 1—m1t. GEO. H. BARR & CO.

Farm Implements for California.

BURRALL'S PRIZE REAPERS, MOWERS, *Threshers, Separators, Clod Crushers, Field Rollers, Cultivators, Horse Powers, &c., &c.*—all warranted of the best material and workmanship. Strong, compact, and reliable, expressly for that market.

Made and sold cheap for cash, by THOMAS D. BURRALL, Geneva, Ontario Co., New-York.
Feb. 10, 1853—7—13t.—m3t.

Norway Spruce, Silver Fir, &c.

JOHN SAUL, Washington, D. C., offers the following for sale :—

300 000	Norway Spruce,	4 to 6 inches.
300,000	" "	6 to 8 "
15,000	" "	9 to 12 "
8,000	" "	2 to 3 feet.
10,000	Silver Fir,	4 to 5 inches.
30,000	"	5 to 6 "
10,000	"	6 to 7 "
1,000	"	12 to 18 "
1.000	"	2 to 3 feet.
3.000	Larch, (Europ'n)	2 to 3 feet.

The attention of Nurserymen and Planters generally, is respectfully called to the above extensive collection, which will be sold at very low prices. Persons taking large quantities will be dealt with liberally. The whole are remarkably thrifty and fine. March 1.—1t

THE CULTIVATOR:

A MONTHLY JOURNAL OF

Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 *CENTS A YEAR.*

This standard Agricultural Monthly commences with the new year, its Third Series. It is published in the same superior style, and will now be more valuable than ever, as the choicest Agricultural and Horticultural articles in The Country Gentleman will appear in its pages. The price hereafter will be as follows:

Single copies, Fifty Cents—Eight copies $3—any larger number at the same rate.

All subscriptions must commence with the January No., and the payments must in all cases accompany the order for the paper. LUTHER TUCKER,
Publisher, Albany, N. Y.

Postmasters and all friends of agricultural improvement, are respectfully invited to act as agents for The Cultivator and The Country Gentleman.

THE COUNTRY GENTLEMAN

IS PUBLISHED EVERY THURSDAY,

By LUTHER TUCKER, Proprietor,

At 395 Broadway, Albany, N. Y.

LUTHER TUCKER and JOHN J. THOMAS, Editors.
JOSEPH WARREN, Assistant Editor.

Terms.—To City Subscribers, whose papers are delivered by carriers, $2.50 per year.

To mail Subscribers, $2.00 a year, if paid in advance—or $2.50 if not paid in advance.

The postage on this paper is but 6½ cents per quarter—payable in advance—to any part of the United States, except the county of Albany, where it goes free.

Advertisements.—A limited number of advertisements will be inserted, at the rate of $1.00 per square of 12 lines for the first insertion, and 50 cents for each subsequent insertion.

FORBES.

THE CULTIVATOR.

VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES.

Vol. I. ALBANY, APRIL, 1853. No. IV.

Gold, and Farmers' Prices.

A LATE English paper very aptly remarks, "Our world of credit, like the world of the Hindoo philosophy, rests upon an elephant, which is supported by a tortoise. The elephant is our bank-note circulation; the tortoise, a few millions of gold in the coffers of the bank of England."

The wealth of the world consists not in the amount of gold and silver it possesses, nor in the amount of bank-note circulation on the basis of these metals. Real wealth is a full supply of the comforts and necessaries of life, in the form of good homes, good farms, convenient public and private conveyances for people and produce, the supply of all articles for the gratification of personal wants, and for the promotion of intellectual culture.

Small circular discs of certain metals called money, could supply none of these wants, if there were not a general understanding and agreement among men, that they shall be the representatives of wealth. A precisely similar, but more limited agreement, makes bank-notes the representative of these discs, and consequently of wealth itself. A third representative is "credit," strictly called so, which is still more limited in the extent of its action. A man furnishes commodities to his neighbor, and charges him on book account. This book account is the representative of wealth, for it will bring the money or other goods in due time. Or he furnishes goods for bank notes, which are alike its representative, for they too, according to agreement, will bring it. Or, he sells for gold coin, because it represents wealth by a more universal agreement, and will everywhere command its possession.

The amount of gold and silver is much greater at present than two centuries ago, and the prices of commodities, represented by these metals, are much higher. But prices would not probably be any higher than formerly, if gold and silver were the only medium for trade. The commercial business of the world has increased enormously during this period, and by far the greatest portion is carried on through the medium of credit, either by book account, checks, promissory notes, or bills of exchange. However excellent the "cash system" may be in many instances, the great convenience of credit will doubtless keep up its use as long as men do business with each other. It would be impossible to estimate the amount of business thus transacted at the present time. It is said that during the greatest activity in the grain trade in England, some years since, there were persons employing a capital of only five thousand pounds, who carried on business by means of book transactions to an amount of five or six hundred thousand. The bills of exchange, alone, in circulation in Great Britain, have been supposed from calculation to amount to a hundred million pounds; at the same time that the bank-note circulation has been less than forty millions. The transactions of the London Clearing House are said to be about three million pounds daily, liquidated by means of a little more than two hundred thousand in bank notes. We state these facts to show how small a share money has directly in the accumulation and transfer of the wealth of the globe.

What effect, then, it may be asked, will the present accumulation of gold have upon the prices of land and its products? This is a very important question to such as may be about to purchase farms with a long period for payment, or to those who may sell under like circumstances. If a man sells a farm at fifty dollars an acre, and before he gets his pay, it has risen to a hundred dollars an acre, and all the necessaries of life have risen in like proportion, he will feel rather dissatisfied with his bargain. A glance at the past may throw some light upon the subject of a rise or fall in prices.

During the sixteenth century, when the amount of business transacted was small, a prodigious increase of prices took place by the long continued influx of silver, consequent on the discovery of the western world. This increase has been estimated as high as 300 per cent. The value of gold became nearly doubled, or one pound of gold which before was worth only nine or ten pounds of silver, afterwards exchanged for fifteen pounds of silver. At the present time, the reverse is taking place, though in a far less degree, yet sufficient to drive the present silver coin out of general use. During the seventeenth and eighteenth centuries, the increase of the precious metals produced, in the space of about fifty years, an advance of 20 or 30 per cent. in prices.

Whether a corresponding increase in prices will take place in the next fifty years, is somewhat involved in conjecture. An exchange of commodities may be carried on to an unlimited extent without money, or with only enough for the payment of the balance. The rapidly increasing facilities for conducting business on credit, through the assistance of telegraphs. railroads, and steamships, will of itself tend more to increase the prices of property, than all the gold that shall be collected for long years to come. Its accumulation will be far less felt in consequence of these facilities, and of its disproportion to the enormous increase in commerce; but it will not be without its favorable influence, for it will "serve to strengthen the golden tortoise, and render the superincumbent mass of credit more secure." And whether gold digging continues or not, the prices will probably advance gradually for the reasons already stated. On the other hand, the great improvements which are making to cheapen the cultivation of land, and in manufacturing, will tend to keep down the prices of its raw and of its manufactured products, and increase the value of land at the same time. All these conflicting causes, operating together, must prevent any sudden change in either direction.

Very mistaken notions prevail as to the effects of Californian and Australian mining. Many suppose that if the country is flooded with gold, we shall have a "golden age" in earnest, with pockets at all times full of money; and life's comforts and luxuries in profuse abundance. Nothing can be more fallacious. For, admitting that by a sudden influx, gold should become as plentiful as silver formerly was, and that as a necessary consequence prices should suddenly rise, as we shall suppose, to as high an increase as those of the sixteenth century, or 300 per cent., what would be the result? What glorious times, some will imagine, these would be for the farmers,—wheat at three dollars per bushel, corn at two dollars, beef and pork at twenty-five cents, butter at fifty, and other surplus farm produce in like proportion. Merchants would be delighted to find their goods tripled in value; mechanics would rejoice at their tripled wages, and lawyers and physicians at their three-fold fees. But this outburst of joy would all subside as soon as the farmers began to purchase their dry goods and groceries, and the shop-keepers their farm provisions. The mechanics and professional men would find it no more easy to live than before, for their greatly increased means would require an equally increased outlay to supply every want. They would now learn, what many have never learned, the difference between value and price. The *real* wealth of the world, would remain the same; all the difference would be in the increased amount of its representative, gold, required to purchase every article. Hence we arrive again at the truth stated in an early part of these remarks, that the possession of the precious metals is not wealth in itself, but it consists in all those means and materials which go directly to supply our wants. Real prosperity depends not on money, but on the industry, enterprize, intelligence and energy of the people, in procuring the comforts of home, in multiplying the products of the soil, in perfecting all the arts of cultivation, in facilitating the manufacture of all crude materials, in rendering markets and exchanges accessible, and above all, in a general wish to consult the *general good* in preference to selfish interest, which is a most healthy, life-giving principle for any community.

Steam Plows.

A writer in the *Farmers' Magagine* (London) gives it as his decided opinion that steam plows can never come into general use. He witnessed the experiment made on Locharmoss, near Dumfries, and states that in consequence of the want of uniformity in the soil, the work was done very imperfectly, and the iron belt which drew the plow, continued repeatedly to break, as it met with obstructions. If the engine is a fixed one, placed in the center of the field, it must be heavy and expensive, to resist the lateral pressure; if it is so constructed as to travel in company with the plow, which could only be done on dry and hard ground, a force equal to that of two or three horses would be constantly expended in draging the engine itself. If this difficulty exists in England, in the way of introducing steam power for plowing, it must be still greater here, where coal or other fuel is costly, and horse labor comparatively cheap. Hence the reason that the use of the *fixed* steam engine, for threshing, grinding, &c., is so common in England; while here, horse power for thresing is universal. If, therefore, we find it most costly to employ steam for *fixed* farm work, it must become far more so to use it in such a way as to require a constant removal of the engine.

The writer above quoted thinks that steam plows can only come into use on level tracts of moss or peat bog, where the surface is even, and the texture uniform and with no obstructions.

High Culture and Great Crops.

American readers of agricultural journals are familiar with the name of J. J. Mechi, the energetic and celebrated English farmer, who has rendered himself eminent by his success at "high-farming," that is, by profuse manuring, and profuse crops. He has, in short, applied garden culture to his whole farm. He has made a late report of his success with mangel wurzel, the soil for which was made one foot deep, and two hundred weight of super-phosphate of lime applied per acre. This is none else, as our readers may know, than bones dissolved by sulphuric acid, and this amount alone is abou tequal to a good dressing of yard manure per acre, for some purposes. Liquid manure was copiously applied to the growing crop. The result was—one *good* square rod contained 89 roots, (or about one to three square feet,) average weight 8lbs. 2 oz. each, or 52 tons per acre. One poor rod—89 roots, averaging 5½ lbs. each, or 36 tons per acre. Average of the ten acre field, 43 tons per acre. Many roots weighed 23 to 25 lbs. each, without tops, and measured 33 to 42 inches in circumference. He asserts that this high culture will enable him to produce roots at five shillings, ($1.25) per ton. The liquid manure penetrates the soil and acts immediately. One load of cow dung, rendered liquid, will by its immediate action, manure more land than four loads dry. He thinks after a lapse of some years, sewers from towns and public institutions will rent at a high price, and the farmer "no longer fret and stew about Lobos Island, Peruvian monopoly, or peculative deception," but use the fertilizing materials which are now wasted, and swept into rivers and the ocean.

◆

Great Secrets in Cultivation.

Those of our readers, whose recollections extend back far enough, may remember to have heard of a great discovery that was once made in the cultivation of the earth, and for the public announcement of which, a few hundred thousands were asked from one of our state governments. The state government declined paying the price, but the people individually paid subsequently large sums in the aggregate, to obtain separately the secret. Many of them have thought that the dollar thus paid by each was well expended. Without giving any opinion as to the merits of this discovery, we shall undertake, for the benefit of our readers, to mention several other secrets in the art of cultivation, doubtless quite as new and original, and which we are confident, if properly known, appreciated, and acted upon, would be worth to the mass of American farmers, quite as much as the sum claimed for the other.

1. The first, and perhaps the most important of these secrets is, *doing everything in its season*—and never putting off till to morrow what can be done to-day. We have known farmers, occupying not over a hundred acres, who lost by sowing crops too late, by failing to seize the most favorable opportunities for planting and for harvesting, by allowing grain to get over ripe, by neglecting to provide and repair tools, and to examine the condition of fences at the more leisure periods, and in various other ways, to lose annually at least one hundred dollars on an average. Consequently, an effectual remedy for this evil would be worth in the aggregate, to a half a million of our farmers, no less than *fifty million* dollars annually. What government will give us half this amount for divulging the secret? How many individual farmers will give us a dollar for this knowledge?

2. Another great secret is the proper *saving of manures*. Half our farmers at least, waste more than half the value of the manures deposited by their domestic animals, through the escape of all the liquid portions, worth one-half of the whole; and by the dissipation and loss of a large share of the solid portions. These losses might be saved by the construction of tanks or basins for liquids, and by the free use of straw, dried muck, sawdust, fence-corner turf and soil, &c., for absorbing and retaining the portions of manure commonly wasted. Now, manure is the main-spring of good farming; and wasting one-half or two-thirds of all that might be saved, is lessening the crops and starving the land, to an amount equal to a hundred dollars yearly for medium farmers. This, for the half million, would again be fifty million dollars.

3. The knowledge of the great advantages resulting from under-draining, remains a secret to many. We have known a field of land so wet as scarcely ever to pay in crops the cost of cultivation, but which, after thorough draining, yielded the first year forty bushels of wheat per acre. Those who have practiced tile-draining extensively have often found the whole expense reimbursed at the close of the second year by the increase in product. There are few farms that would not be benefited more than a hundred dollars above all expenses by thorough draining, making the aggregate gain for the whole country fully equal to that of the preceding instances.

We need not multiply examples of this kind, to show the proneness of men to leave what is easily learned, and which may prove eminently advantageous, for that which is "far-fetched and dear-bought," to show that we need not "compass sea and land" for the discovery of new and wonderful arts, of little value, while so many advantages lie unimproved directly beneath our feet.

◆

Cultivation of Oats.

One of the best articles on the cultivation of oats which has appeared, is the Essay of J. Rowlandson, as published in the last number of the (British) Farmer's Magazine. As the same rules of cultivation will apply in a great measure to both countries, we shall perhaps render an acceptable service to our readers by giving a brief outline of the facts stated in that article, so far as they may be of general application.

Soil.—Any soil in good condition will produce good crops of oats—they can be profitably grown on soils too poor for other cereals, rye excepted—and on all intermediate stages of fertility up to rich virgin land. Some rich, newly drained peat soils have produced from 80 to 100 bushels of light grain per acre. With regard to climate, oats will flourish under a very wide range. The heaviest and best crops are grown on soils the most productive of ordinary farm crops. For all seasons, friable loam situated on broken limestone, has been found best. Heavier or more cloddy soils are apt to suffer from drouth, to remedy which sow early and rather thick. If sown late and thin, a miserable crop will be the result. On marly soil, the grain is heaviest, being often 45 or 46 lbs. per bushel—heavier crops, however, are obtained on rather looser or more friable soils. The heaviest crops on rich and moist drained peat, are raised during dry seasons, when the crop is sown early. On gravelly soils, unless in very good tilth, oats suffer most from drouth.

Cultivation.—The best preparation for luxuriant crops is freshly broken up grass land. The only objection is the small pecuniary return for so valuable a preparation. In the warmer parts of

England, fine crops are obtained by a high state of tilth and early sowing—these requisites doubtless being still more important in the warmer climate of the United States. Drilling has proved quite successful, in the few instances where this mode of sowing has been adopted, resulting in ten to twenty per cent saving in seed, and in additional product. Few crops derive more advantage from rolling. Early sown crops are invariably the best. If sown late, the chances are ten to one against a productive one, as the young plants are checked by dry weather, from which they rarely recover. The best time for cutting, is when a few of the grains retain the slightest possible trace of green color on the chaff. Very early oats may be cut somewhat greener, as they will ripen afterwards in the midst of hot weather—a reason why they may be cut greener in this country of hot sun, than in the cooler climate of England. Oats are more liable to heat in the stack than either wheat or barley, on account of their more compact layers, and hence should be left in the shock till well dried. In dry soils and climates, autumn sowing is recommended as decidedly best.

The results of many experiments are given to show the comparative value of different varieties, but that are here omitted as being not generally applicable to this country.

Polishing Plows.

There is hardly a farmer to be found, who has not at some time had his patience tried, with having to stop every few rods, back his team, and scrape off the dirt from the mould-board of his new plow; and this for two or three days upon a stretch, before the coating of sand and iron had been worn through, and the proper iron mould-board made its appearance, smooth and bright, ready for use and wear.

Now, to all those who are expecting to go through with the old operation of polishing a new plow, by scraping it the coming spring, I would propose the following cheap and effectual remedy:

Go to any druggist shop and procure 4 oz. of sulphuric acid, or oil of vitriol; which will cost from five to ten cents, according to the conscience of the druggist. Take a stick and wind upon the end a woolen rag, and tie it on with a coarse strong twine, making a swab; set your plow where it will be exposed to the sun, if convenient; then pour the sulphuric acid into an earthen bowl, and dilute it with an equal quantity of rain or river water. Take the swab and thoroughly moisten every part of the plow that requires polishing; work fast, lest the acid eat up your swab before you have gone over the surface, and be careful not to get any on your clothes or skin, for it is very corrosive. Let the plow stand about 24 hours, then scrape off the scales which will have arisen all over the surface wet with the acid; hitch on the team and go ahead; and in from fifteen minutes to one hour, the plow will be smooth and bright.

The rationale is this. The outer coating of the castings is composed of a mixture of sand and iron, more or less porous, thus admitting the free passage of the acid, which decomposes the iron, changing it to an oxide, and as soon as the solid iron is reached, the action of the acid terminates, or is very slight, owing to a want of surface upon which to act.

Farmers, try it; and when you are made acquainted with some simple, cheap contrivance, for promoting the comfort, and lessening the expense of others as well as yourself, make it known by writing a few lines to the editor of some good agricultural periodical like the "Country Gentlman" and "Cultivator," and thus let your light shine before men. E. D. Peirson. *Hudson, Mich.*

Manure Cellars.

A great mistake is often committed in the management of manure cellars. The manure is permitted to accumulate unmixed, except with such small portions of straw, plaster, &c., as may be used in sprinkling the stable floors, but which prove wholly insufficient to prevent the rising of the steam and odors, "like a gross fog Bœotian" through every crack and crevice into the apartments above. Very perfect and tight floors will indeed exclude them, but will not preserve the valuable portions of the manure, like mixing the whole mass into an inodorous compost. Plaster or gypsum, with water, contributes to retain the ammonia, and is useful on the land to a certain extent; and pulverized charcoal is excellent for the same purpose. But for the common purposes of farmers, for using on a large scale, nothing is equal to dried mould, turf, and swamp muck or peat. Enough of these materials should be carted into the manure cellar, or under some contiguous shelter, to form a mass at least equal to the whole of the manure from the stables. If well dried by remaining there a long time, they will not only act chemically in retaining the ammonia of the dung, but they will also act to a very great extent mechanically, in absorbing all the liquid portions. They should be applied in thin successive layers as the manure is gradually deposited. Many farmers have a large portion of their fences fixed, so as not to be moved, the borders of which, after a time, by escaping cultivation, become rich with vegetable matter. No better use can be made of the turf in these fence borders than mixing into compost. Where peat exists within convenient distance, it may be drawn to great advantage during the winter season.

The Mineral Theory.

The experiments of Lawes, in England, as our readers may well know, have contributed very largely to overset the former theories, that the application of the richest mineral constituents of manures is all that is necessary for increasing fertility and raising the largest crops. It is true, that when important mineral ingredients are absent from soils, it becomes a matter of great consequence to supply them. But experiments indicate that this is not a common deficiency; and that the application of the compounds of ammonia are of far greater importance. A late number of the Gardeners' and Farmers' Journal (English) contains the report of an experiment, which, in the opinion of that journal, furnishes a complete refutation of the mineral theory; but it should be remembered that the results might have been very different on other soils. The following is in substance the experiment:—

An incendiary reduced to ashes a pile of barley-stacks, from some 12 to 15 acres of barley. The ashes were scattered over about half an acre of ground, adjoining the stacks,—thus concentrating the mineral constituents to about one twenty-fifth of the land from which they were taken. A turnep crop, a barley crop, and a crop of seeds, taken subsequently from this half acre, showed no perceptible superiorty over the rest of the field—neither portions of the land yeilding more than ordinary products.

Bees.

In a former article, (April, 1852,) I gave some few hints on the attention due to bees when swarming. If those suggestions are carefully observed, the inexperienced operator, though at first distrustful alike of his skill and safety, amid such myriads of volatile and irritable subjects, will by degrees acquire confidence by success, and come at length to esteem this exercise a most agreeable pastime. Arrayed in the simple defences of veil and mittens, one will soon learn to face the foe without the slightest apprehension of personal danger, and will regard the needful attentions bestowed on his industrious charge, as the most agreeable of all rural exercises.

It may be well here to say, that one must not look for entire uniformity in the movements of swarms. They vary materially in temperament, in apparent organization, in time and place of alighting, in disposition to enter the new hive, &c. The operator is simply to wait their time to alight, after which he must not rest until they are secured. The whole art of hiving seems to consist in bringing the bees gently to the mouth of the hive, and then with something soft, like a table-brush or the feather end of a quill, keeping them in motion until they have passed up into the hive; when the bottom board should be closed, and the hive carried and hung in its place. Every movement requires moderation. Any rude thumps or sudden jostlings awaken instant alarm and irritability, resulting not unfrequently in the sudden departure of the whole valuable swarm to the distant forest. The domestication and consequent usefulness of the honey bee consists, not in any direct exercise of control, for their light wings bid defiance to all human restraints, but in a process of encouragement, (by the kindest treatment,) of their instinctive propensity *to hoard;* so as to secure above the supply of their own wants, a portion of their delicious store for the remuneration of the owner's care. In this view no robbery is involved in the act of appropriating the surplus product. The claim is good for rent of tenement and actual service, while the tenant swarms suffer nothing in amount of supplies.

But the domesticated tenants of the hive and their faithful keeper, are not the only lovers of the delicious hoard. Many a greedy stomach, without certificate of title, is attracted to the apiary, bent on plunder, utterly regardless of the rights of property, watching assiduously for an unguarded entrance, or a contiguous nook in which to riot without molestation. Legions of busy ants will enter through a pin-hole, and the moth-miller, at a single sweep through the ranks of an unprotected comb, will deposit eggs enough to desolate the hive in a month. Once fairly in possession, this terrible foe intrenches himself in his silken shroud, and cannot be dislodged till the last morsel of sweet is consumed. From his own kind too, the honey-bee often experiences sudden and overpowering onsets. A hive that at sunrise is full of treasure and brave defenders, may ere the close of day be rifled of both, and the defrauded keeper can discover no trace of goods or robbers.

Inaccessible walls, a competent garrison and a well guarded entrance, constitute the main defenses of a castle against lawless marauders of whatever name. The depository of honey, likewise, so terribly beleaguered, *must have close joints, ample forces, and as contracted an entrance as will comport with the performance of necessary labor.* The moth has never effected a lodgment in any of my hives; and I think no swarm has ever suffered a penny's worth from this greatest pest of the apiary. This fact, is doubtless attributable to attention in some degree to the above precaution.

Late in autumn, I remove my hives to a dark cellar, which is tolerably dry, with cemented bottom, where they hang on the same frames till the snow is off in April. If the chambers are open to allow a current of air to pass through the comb, it is less liable to mould. Should the lower edges of the comb become moulded, after removing them from the cellar, blow a little tobacco smoke into the hive, and the bees will become so stifled that one may safely lay the hive on the ground and trim off the injured portions, without detriment to that which remains.

A variety of useful suggestions might be added, but they will readily occur to the practical operator, and experience is a good teacher. H. W. Bulkley. *Ballston, Feb.* 3, 1853.

How I Bought a Horse that had the Heaves,

AND HOW I TREATED THAT DISEASE.

BY HENRY F. FRENCH, EXETER, N. H.

Mr. Editor—Did you ever read "The Adventures of a Gentleman in Search of a Horse?" I read it, years ago, and have never been so fortunate as to see it since. If I recollect aright, it gives the experience of a man, who set out to purchase a perfect horse, and with about the same success that King Solomon had in trying to find a perfect woman; and tells how he, like all the rest of us, got cheated again and again, in different ways, as the *best of people will,* and indeed are more likely to be than anybody else. Once he bought a fine animal that was advertised, as "*sold for no fault, only the owner wants to leave town,*" and the new proprietor was led to feel the full force of the language, the first time *he* wanted to leave town, for his new steed could not be induced, by any suasion, moral or physical; to budge a single rod from his stable door.

Perhaps it was not *that* gentleman, but another, who having purchased a nag, which was represented as *free from all faults,* and found him stone *blind,* brought him back to the seller, and reminded him of his statement.

"I hope," replied the seller, coolly, "you don't call blindness a *fault*, when it is only the poor horse's *misfortune!*"

Everybody knows that I have no great pretensions to much knowledge about horses, and in order, therefore, to give my teachings due weight, you must be informed how I came by my education in this department of science. Be it known, then, that about five years ago, I chanced to be the proprietor of a mare, the verriest vixen that ever went on four feet. Among her other "amiable weaknesses," was a strange propensity to *kick*. It was her favorite amusement to kick at any other creature, quadruped or biped, that came within reach; and when tied alone, she would keep herself in practice, by kicking up her heels, as high as the scaffold, about once in five minutes, accompanying the performance with a squeal, that could be heard by all the neighbors.

Such an animal was rather difficult to dispose of, as you may suppose. Mr. Pickwick and his friend, after they had led that "dreadful horse" six miles in the heat and dust of a summer's day, without being able to mount him, were in a scarcely worse dilemma. Finally, my precious Kate, who was more of a "shrew" than even Petruchio's, having withstood most manfully (*womanfully*, occurred to me, but I won't say it,) all my endeavors to "tame" her, commenced a new species of gymnastics, by kicking up in the carriage every time she felt the breeching, in going down hill.

Now, as she would not work on the farm "for any man's persuasion," and was not precisely the kind of animal to sell to one's particular friend, as "a steady family horse," and as I did not dare to risk my own wife and children behind her, I began to read the "Muck Manual," with the idea of computing her agricultural value, for the compost heap, when fortunately I had occasion to drive her to the good old town of Derry, in a sleigh. As I came up to Cameron's Hotel, at about "a three-minute lick," as the jockies say, I saw at the sign post, a fine stately horse harnessed to a sleigh. I was examining him pretty carefully, when a man whose appearance announced him as one of "the Fancy" stepped out, and accosted me with, "Well, friend, do you want to buy such a horse as that?"

"I should like him," was my reply, if he is as good as he looks, and you will sell him at a fair price, and take mine without any extra charge."

"Why, what sort of a beast have you got? She looks well, and came up the street as if she had legs enough."

I hope I shall be forgiven, if I suspected he would not believe more than half I said, when I replied, giving him the literal truth: "She is six years old, and sound, can trot a mile in three minutes, and will be likely to kick your brains out if you take her, in the course of a week." He assured me that *his* horse was perfectly sound and kind; that his price was three hundred dollars, and that he would "swap right;" adding, coolly, "I should like to see one horse that is uglier than *I* am."

I proposed to drive his horse, alone, to which the owner at once assented, and I steered straight off to the stable of a man, famous for his skill in horse-flesh, whom I had known when I was a boy there at Pinkerton Academy, and asked him to examine the animal with me. We drove him out of sight, and gave him a thorough investigation. We tried him in all his paces, walk, trot and canter, forward and backward, examined his teeth, his feet, his knees, his eyes. We observed his breathing, spoke of the glanders, the heaves, broken wind, and various other ills which horse-flesh is heir to. But he seemed "all right." He was young, and large, and handsome, and fleet, and to all appearance sound and manageable; and yet we were perfectly satisfied that the horse had some defect.

However, I put a bold face on the matter, drove back to the hotel, and told my man I would give him fifty dollars to boot, or go along with my own horse. Without driving my mare an inch, he quietly unhitched his own horse from his sleigh, exchanged harness, put him to my sleigh, and pocketed his fifty dollars, hardly losing a whiff of the cigar he was smoking. I confess I was a little startled at his perfect composure, but with a friendly caution to beware of Kate's heels, I bade him farewell.

I had but five miles to drive that afternoon, to my native town of Chester, where I stabled my new horse for the night. I gave him the name of the "General," it being a time of political excitement, when both candidates bore that title. I never mingle politics with agriculture, and did not want my horse to run a political course.

Having dreamed of horses all night, besides having the *nightmare* once or twice, I awoke betimes, anxious to learn the condition of my new treasure. Everybody knows how much more pride one feels in his horse, than in any other property, and especially how it "takes the conceit out of him" to be cheated in a "horse trade."

I went to the stable with fear and trembling, doubting whether the *General* had not been transformed like "fairy gold," to dust and ashes, during the night, or whether he might not have been a witch's horse, and be found turned into a broomstick!

But he was there in full shape and proportions. *He gave a slight cough* as I opened the door, a sound which a man who has owned a horse with the heaves never will forget! and on examination I found he had a strange way of breathing, *his flank heaving two or three times* at every expiration of the breath. I was told at once that my horse had the *heaves*.

I had heard of the disease frequently, and had the impression, which I find is quite common, that it renders the animal worthless. However, as it was a complaint which struck at my purse and my feelings, and not like Katy's heels, at my *head*, I concluded to be resigned, and avail myself of my very manifest advantages for observations on its symptoms and treatment.

My horse went home to Exeter, sixteen miles, in fine style, with no symptom of disease, except once in a mile or two, a slight cough. Straightway I strove to learn all that books and stable men can tell of the heaves, and to try all known remedies.

In its common form, it is thought to be a formation of air cells on the *outside* of the lungs, from which the air escapes with difficulty. Sometimes, on dissection, the proper air cells of the lungs are found to be ruptured, and generally there is inflammation of the throat and windpipe. The theories about it are various. It is said often that the lungs have not room for action, and that food should therefore be given in a condensed form, and in moderate quantity—and this I should regard as correct, were it not notorious that horses at grass, where they eat enormously, and keep their stomachs distended, are usually relieved of their worst symptoms.

I tried all sorts of *heave-powders* on my patient, with no effect whatever. It is said that in a *limestone* country this disease is unknown, and lime water was prescribed, with no apparent advantage. Some one told me to give the horse *ginger*, and strange to tell, I found that a table spoonful of ginger given to the General with his oats, when breathing his worst, would cure him *for the day* in half an hour after he had eaten it; but on giving it daily, the effect soon ceased. It is a jockey's remedy, and will last long enough to *swap* upon. Finally, I was advised to cut my horse's fodder, and give it always wet. I pursued that course carefully, keeping the General tied with so short a halter that he could not eat his bedding, giving him chopped hay and meal three times a day, and never more than a bucket of water at a time.

He improved rapidly. I have kept him five years, making him a *factotum*—carriage horse, saddle horse, plow and cart horse—and he bids fair to remain useful for five years to come. Kept in this way, his disease does not lessen his value for speed or labor, a single dollar. When the boys grow careless, and give him dry hay, he informs me of it in a few days, by the peculiar cough I have mentioned; but sometimes, for six months together, no indication of disease is visible, and he would pass for a sound horse with the most knowing in such matters. There is no doubt that *clover hay*, probably because of its *dust*, often induces the heaves. Stable keepers, with us, refuse it altogether for this reason

Many suppose that the *wind* of the horse is affected by the heaves, so that fast driving at any time will, as we express it, put him out of breath. With my horse, it is not so, nor with others affected with this disorder.

When the General was at the worst, rapid driving, when just from the stable, would increase his difficulty, but a mile or two of moderate exercise would dissipate the symptoms entirely. We have, occasionally, what are called *wind-broken* horses, which are nearly worthless, for want of *wind*. They can never be driven rapidly without great distress, and frequently give out entirely by a few miles driving. This is thought to be a different disease. The General's case is, I suppose, a fair example of the *heaves*.

I have no doubt that *regular feeding with chopped and wet fodder*, and exclusion of dust from hay fed to other animals in the same stable, would render many horses now deemed almost worthless, and which manifestly endure great suffering, equally valuable for most purposes, with those that are sound.

And now, my dear sir, if you will call on me when the snow has gone, and the birds begin to sing, I will show you the General, fat and sleek. I shall be glad, also, to show to the *country gentlemen* of our neighborhood, one whom they already know by his works, as a man who has done much to make the earth fruitful and beautiful, and to enhance the enjoyments of Rural Life. *Exeter, N. H., Feb.* 7, 1853.

◆

Pay all due attention to manual labor, none need be ashamed of the marks of honest toil; but a man need not insist on rubbing the dirt into his very soul, and being all his life a day laborer

Rambles in New-Hampshire and Vermont.

I propose to give your readers some notes of farms and farming, in different sections of New-Hampshire and Vermont. My first letter will embrace the extreme northern valley of the Connecticut River, from its source, away up among the highlands of New-Hampshire, down sixty or seventy miles below.

In no part of New-England is there a better or more desirable soil, than that composing the whole valley of the Connecticut, extending a distance of three hundred miles, to the sea-board. The meadows upon either side, are annually overflown, and on many farms such rich deposits are made as supersede the necessity of cultivation, or applying manures, for many successive years. Two tons per acre of the best quality of hay, and fifty bushels of oats, are produced upon these farms, with but very small cost for fertilizing products.

In the northern valley, the waters in high freshest run so rapidly, that the quantity of sediment deposited is comparatively small, and consequently the benefits of irrigation are limited. The land has to be turned up and well manured, to produce good crops of hay or grain. When well treated, it returns an ample and remunerative harvest. Back from the river, the hills afford the sweetest pasturage, to their very summits, excepting those which have been long cleared. The farmers in this section have preferred to intrude upon their heavy forests for fresh pastures, rather than attempt the renovation of their old and worn out ones. The first clearing costs about $10 per acre, One crop of wheat is taken, averaging 20 bushels per acre, worth from $1.00 to $1.50 per bushel. When oats are sown, 50 bushel is the average crop. If the land is intended for pasture, six or eight pounds of clover, with one peck of herdsgrass, are sown with the wheat or oats.

When grass seed is required for a crop, three or four quarts, without clover, are used. The first yield of seed upon hard-wood land, is usually eight to nine bushels per acre. The next from five to eight. Three successive crops of grass seed, taken from the richest upland soil, renders it unfit for good pasture. It is a great exhauster. Mr. Rufus Cross, of Colebrook, N. H., raised in 1851, 300 bushels. Many others in the same town 100. It sold for $3.00 per bushel.

The farmers, generally, in this part of Connecticut River valley, do not yet fully appreciate the benefits of thorough culture and liberal manuring. They do not yet know the capacity of their farms. By attempting without any system, to cultivate too many acres with a given quantity of manure, their work is done superficially. They are emphatically behind the times in the work of improvement. Not so with all, however. There are many wide awake with a noble enthusiasm.

The following "Rough Notes from my Memorandum Book." will give an idea of what some of the best farmers are doing in the section of which I am writing.

Mr. Nathaniel Beach, of Canaan, (Vt.) has a farm of some 200 acres, 70 of which are Connecticut intervale—yielding on portions of it, three tons of hay per acre. He applies his manure in a rotted state, either on sward or old ground, at the rate of 20 cart loads to the acre; spreads and plows in. This is done both in fall and spring, as suits his convenience. On sward land he will sow oats, four bushels per acre—crop, 50 to 70 bushels. Next year he manures in the hole, and plants corn, the eight rowed Canada variety. The average yield is from 50 to 60 bushels per acre. He sows buckwheat on land prepared as for oats, and gets 40 bushels per acre. After corn he again sows oats, and seeds down with clover and herdsgrass. Mr. B. is beginning to raise Swedish turneps to fatten his hogs. He boils them with buckwheat meal. He makes his hogs earn their living by supplying them with muck and scrapings from his cattle yards. He throws in large quantities of buckwheat hulls, which absorb all the liquids, and make a most excellent manure. He has a fine dairy of 20 native cows, improved by judicious care in selecting the best, and keeping well. His dairy products amount to 4,500 pounds cheese, and about 1,000 pounds butter, annually. Mr. B. has never kept an accurate account of the cost of his farming, but promised to do so the coming year.

Hon. John Dewey, of Maidston, (Vt.) tried an experiment with pure clay, as top-dressing on a dry sandy knoll. He drew on at the rate of 20 loads to the acre—placing a shovel full in one spot and letting it dry, and then knocking it into very fine parts, giving a good coating, equally distributed. This was done in the spring. The grass came on luxuriantly during the summer, and where he before obtained half a ton of hay, he got one and a half tons. Since, a good crop has been annually produced. W. A. W. *Lancaster, N. H., Dec.*, 1852.

Premiums Awarded at the Winter Exhibition

of the New-York State Ag. Society.

I. Dairy Buildings.—Horace Clap, Houseville, Lewis co. silver cup, $50.

II Draining.—Joseph L. Swan, Fayette, Seneca co., $20.

III. Field Crops.—*Winter Wheat*—Ira Apthorp, Riga, Monroe co., 53 bush. 9 lbs. per acre, $20.

Spring Wheat—Chas. W. Eells, Westmoreland, Oneida, 30 bush. 31 lbs. per acre, $20.

Oats—1st. E. M. Bradley. East Bloomfield, Ontario, 93½ bush. per acre, $15. 2d. Calvin Pomeroy, same place, 87 2-100 bush. per acre, $10. 3d. Benj. Enos, DeRuyter, Madison. 75 bush. 9 lbs. per acre, $6.

Barley—1st. A. Gurnee, Watertown, Jefferson, 282 bush. on 4 27.100 acres, $15 2d. David Hess, Fenner, Madison, 128 bush. 46 lbs. on 2 15-100 acres, $10. 3d. R. S. Ransom, Perryville, Madison, 104¼ bush. on 2 19-100 acres, $6. 4th. Benj. Enos, DeRuyter, 108 bush. 30 lbs. on 4 4-100 acres, Trans.

Buckwheat—1st. William P. Coonradt, Brunswick, Rensselaer, $10. 2d. David Coonradt, $8.

Beans—Jeremiah Parker, Watertown, 41 bush. on 1 1-10 of an acre, $10

Potatoes—1st. Peter Crispell, Jr. Hurley, Ulster, 554 bush. on 1 17-100 acres. (Yam potatoes) $10. 2d. Jeremiah Parker, 410 bush. on 1 4-100 acres, $10.

Carrots—N. & E. S. Hayward, Brighton, Monroe, 600 bush. on 55-100 acres, $8.

Flax.—Benj. Aikin, Pittstown, Rensselaer, 23⅛ bush. seed and 445 lbs. flax, on 1 16-100 acres, $10.

Clover Seed—F. N. Tobey. East Bloomfield, 30 bush. 22 lbs. on 6 acres 100 rods, $5.

IV. Grains and Seeds.—*Winter Wheat*—Aaron Houghtaling, New-Scotland, Albany, Soule's wheat, very fine, weighing 62 lbs. per bush., $8.

Spring Wheat—1st. David Coonradt, $8. 2d. George K. Eells Clinton, Oneida, $5. 3d. R. S. Ransom, $3

Rye—1st. David Coonradt, $5. 2d. W. P. Coonradt, $3.

Barley, four-rowed.—1st Obadiah Howland, Owasco, Cayuga, 52 lbs. per bush., $5. 2d. Samuel Morgan, Albany, 41½ lbs., $3.

Barley, two-rowed.—1. David Hess, "Hess Barley," 53 lbs. per bush., $5. 2d. R. S. Ransom, "Hess Barley," 51 lbs. per bush., $3. 3d. Obadiah Howland, 49 lbs. per bush, $2.

Oats.—1st. Peter Crispell, Jr., 42 lbs. per bush., $5. 2d. David Coonradt, 39 lbs., $3. 3d. C. W. Eells, 39 lbs., $2.

Indian Corn.—1st. C. W. Eells, $5. 2d. Samuel Morgan, $3. 3d. O. Howland, $2.

Beans.—1st. R. S. Ransom, Canada field, $5. 2d. O. Howland, large white, $3. 3d. David Coonradt, round white, $2.

Paris Barber exhibited 31 varieties of beans, which attracted much attention.

Peas.—O. Howland, $5.

Timothy Seed.—1st. O. Howland, $5. 2d. C. W. Eells, $3.

V. Dairies.—*Butter*—1st. Joshua Ballard, Homer, Cortland, silver cup, value $15. 2d. H. Worden, Jr., Lee, Oneida, do. $10. 3d. Noah Hitchcock Jr., Homer, Cortland, do. $5 4th, Ira Bowen, Homer, Cortland, Trans.

Cheese.—1st. Moses Eames, Rutland, Jefferson, cup, value $15. 2d. Paris Barber. Homer, Cortland, do. $10.

VI. Fat Stock.—For 1st and 2d best fat oxen, 4 years old, to Gilbert & Sprague, $30 and $25 3d. Ira Rix, $20. To Robert Rome, Geneseo, for 1st and 2d best, 3 years old, $25 and $20.

Fat Cows—1st. Augustus Ross, Preston, Chenango. $20. 2d: Wm. Felt, Smyrna, Chenango, $15. 3d. S. Gowdy, Lewis co., $10.

Fat Heifers—Erastus Corning, Jr., Albany, $15; and $15 to B. McNeil, Carlisle, Schoharie, for 3 years old.

Fat Sheep—Hungerford & Brodie, Jefferson co., for best over 2 years old, $10. 2d. E. Gazby. Dutchess co., $8.—3d. Leonard Jennison, New Lebanon, $5.

D. S. Baker, East Bloomfield, for the best long wooled, under 2 years, $8. Also for the best middle wooled, over and under 2 years, $10 and $8. Also for best cross-bred, over and under 2 years. $10 and $8. B. McKeely, 2d best cross-bred, $8, and J. Winnie, for 3d best, $5.

VII. Dressed Meats.—D. S. Baker, for best long and middle wooled sheep, $5 and $5. Patrick Downey, Albany, for 2d best do. $3 and $3. For cross-bred, 1st. Kenelly & Magraw, Albany, $5. 2. Patrick Downey, $2.

Swine—over 350 lbs. 1st. E. Corning, Jr., Albany, $5. 2d. C. Rapp, Albany, $3. Under 350 lbs. Jurien Winne, Bethlehem, 1st and 2d, $5 and $3.

Poultry—Turkeys, 1st and 2d, O. Howland. $2 and $1. For Capons, 1st. O. Howland $2. 2d. E. S. Bliss. $1. For Geese—1st. E. S. Bliss, $2. 2d. O Howland, $1. Chickens—1st. E. S. Bliss, $2. 2d. O. Howland, $1. Ducks—1st and 2d to E. S. Bliss, $2 and $1.

VIII. Fruits.—Ellwanger & Barry, Rochester, were awarded a silver medal for their fine show of winter pears Copies of different works on fruits were awarded to Ellwanger & Barry, J. H. Watts, and A. Frost & Co., Rochester; T. G. Yeomans, Walworth, John S. Goold, Albany, P. Barber and Chas. Kingsbury, Homer, N. & E. S Hayward, Brighton, J. J. Thomas, Macedon, Wilson, Thorburn & Teller, Albany, Isaac Merritt, Penfield, F. W. Lay and Robt. Brown, Greece, and Hart Massey, Watertown.

IX. Live Poultry.—No premiums were offered for live poultry, and consequently none awarded; but among the entries, the following were worthy of notice:

Black Javas, E. K. Johnson, Albany.

Bolton Greys, Dorkings, Jersey Blues, B. P. Johnson, Albany.

Java Fowls, Cochin China hens, Master Egbert Carey, Albany.

Gray Shanghies, Black do., Buff do., Cochin China, Golden Poland, Silver do., Black fantail Pigeons. Black Cayuga Ducks, Bremen Geese, Fancy long eared Rabbits, a very fine collection, E. E. Platt, Albany

Black Spanish, Cochin China, Buff Shanghaes, Buff do, Spotted do., Malays, Javas, Black Poland, White and Java Bantams, White Shanghaes, Golden Hamburgh. do. Polands, Grey Chittagong, Game Malays, Imported Shanghaes, very fine collection, W. H. Southwick, New-Baltimore.

White Cochin Chinas, White Shanghaes, Grey do., Black do, Yellow do., White fantail Pigeons, fine collection, John E. Tompkins, Greenbush.

Black Shanghaes, White do., Partridge do., Black Spanish, fine collection, J. M. Lovett. Albany.

Dorkings, Dominique, Cross Birds, L. G. Morris, Fordham.

White Shanghaes, Black Spanish, J. McD. McIntyre, Albany.

White Shanghaes, Black do., Brown do., George Anderson, Albany.

Colored Shanghaes, Grey Chittagong, White do., red wing do., C. Bonticue, Lansingburgh.

Pheasant Fowls, Golden Hamburgh, white crested Fowls, Turkeys, E. Corning, Jr., Albany.

Cochin China, four, something new, Thomas W. Ludlow, Yonkers.

English Game Fowl, E. Goodrich, Albany.

E. E. Platt, Albany, exhibited a superior pair of fancy lop eared English Rabbits.

Culture of Hops—No. 3.

Drying.—All hops should be dried as soon after they are picked as possible. At least once a day all should be gathered, and immediately put to drying. If they are kept over night, unless the weather is very cool, they will be likely to heat, or at least their color may be slightly changed, which will injuriously affect their appearance, and not by any means can they be restored.

Kilns for drying are variously constructed The one I shall describe is the same I have used, and similar in most respects to nine-tenths in use in this vicinity. Being found to answer well all purposes, and, upon the whole, about as convenient as any other form. The size should of course be somewhat proportioned to the size of the yard, and the number of hands intended to be employed in picking. It may be in the form of a parallelogram, and about as much space will be required in the upper story for storing, as for drying. The lower story is used for a kiln and a press-room. The posts ought to be high, as in no case should the carpet on which the hops are spread be less than ten feet from the ground floor below.

I know many are used that are not more than six or seven feet high; but this is entirely wrong, and now fast giving place to higher ones. If the kiln is high, the heat has a much better chance to expand and become more uniform. There is much less danger of scorching the hops, and finally I believe it could be easily demonstrated that less heat would be required. Stone or brick buildings would be altogether preferable to wooden ones, being closer, and consequently wasting less heat, and being more fire-proof, there would be less danger from fire.

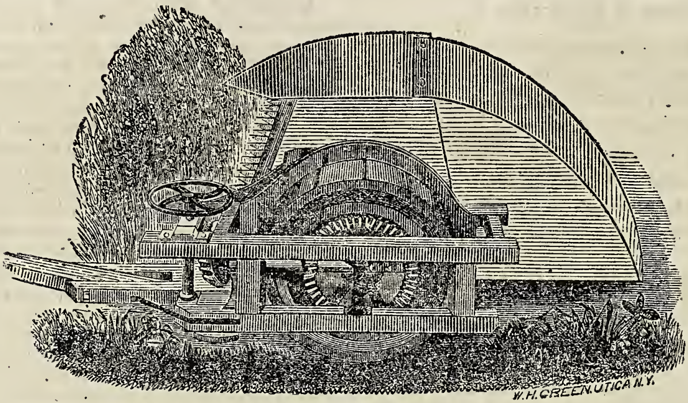
Where wood buildings are used, the inside of the kiln is lathed and plastered all around. leaving only a small door to enter. The sills should be laid one to two feet above ground. and well underpinned with stone laid in mortar, leaving two holes at least, on each side and end, say 6 by 15 inches to supply air from without, to send the heated air upward and through the hops. And this supply of air can be regulated at pleasure by opening or closing the holes.

The hops are spread on a carpet above, supported by small sticks one and a fourth by one and a half inches in size; and nailed to the joists so as to leave about as much space as they occupy. The carpet may be of linen or cotton, (hair carpets, I believe, are used in England, but I have not known them used in this country,) hard twisted, and wove thin, or half slaied, as the weavers have it. The carpet should be well stretched and firmly nailed to the rack above described. The depth to which the hops may be spread will vary with circumstances, from six to ten inches. and I would much prefer the former to the latter, although I have seen them well dried when even more then ten inches deep.

The kiln above, should be sufficiently high to clear a man's head when standing erect in any part of it, and if the sides are plastered to the plates all the better, as in times of high wind it will prevent it from driving the warm air from one side to the other, and thereby cause them to dry uneven.

A plenty of windows should be inserted in the sides above, and large cupolas on the top for ventilation, &c. The hops being spread, and the windows above all closed, we proceed to build fires below, and as soon as possible to get up steam, especially if the hops are at all discolored by rust or otherwise, as it is necessary to get them a little moist in order to bring them to a more uniform appearance by burning a little sulphur under them. If the hops are bright and of good color, the sulphur can be dispensed with, though I think it rather improves all hops in looks, and causes them to open and dry more easily, and for this opinion I have the authority of a great many good hop dryers. A high degree of heat is as soon obtained as possible, and continued steadily until the steam from the hops has nearly all passed off. As there is no danger of scorching at this stage of the drying, (especially if the kiln is high,) the heat must not be allowed to abate, or the steam then passing off would fall back on the hops and stain and discolor them, causing them to become second or third in quality. As soon as the hops are well warmed through and feel moist, the sulphur is burned. Previous to this the windows above must be kept closed in order to keep the heat and steam in, to get the moisture on the hops. After the sulphur gets well to burning and the fumes fill the kiln above, the windows are opened, and a strong draft of air let in under the sills to force the hot air through the hops, and drive both sulphur and steam out of the building. A lively air or heat, passing rapidly off, and being constantly supplied with new or fresh heat, and not a dead, inactive one, is what is needed I will here remark that if high winds prevail, the windows on the side to the wind ought not to be open, as drafts of cold air on the hops would not be of much service. But as every one in drying hops will need to exercise a good deal of judgment in this as in all other respects, I will dismiss this part of the subject by simply saying there should always be a liberal supply of air below, and free and sufficient ventilation above.

As before remarked, a steady heat must be maintained until the moisture is all off, and the hops will rattle a little at the bottom, the top also beginning to feel a little dry, when they ought to be turned, and the heat may be slackened a little. I know many do not turn their hops, or suffer them to be at all disturbed during the process of drying. But from repeated trials in both ways. I am decidedly of opinion that both time and fuel are saved by turning; and there is no waste or injury to the hop if they are turned at the right time. As this is a point on which there is a considerable diversity of opinion, I will give only one (though there are many) strong reasons for turning hops while drying. It is hardly possible, in spreading a flooring of hops, to get them perfectly even and uniform in thickness. They may be level, but there will be places where they will lay more light and loose than others. This is almost unavoidable, as every one knows who has ever dried a kiln of hops; and of course the heated air will pass more readily through those places than where they lay more compact, and such places will become dry while the more solid parts will feel moist and require much more time to dry. Now, when this is the case, as it most invariably will be, the current of heat rushes to those places where it can most easily ascend; the hops all the


W. H. GREEN. UTICA N. Y.

BURRALL'S REAPER.

while growing more and more open, admit it to pass more readily; the heat rushes through them as through a funnel, and of consequence diverting, as it were, the heat from these parts which need it most. Turning obviates this difficulty. They all become mixed, and all dry alike at the same time. They may be turned in different ways; but I think plowing through them with the feet about as good as any. Then level with a rake.

Drying is decidedly the most critical and important operation that we have to perform with hops. It is very important that they be cured well, and just enough and not too much. No rules can be laid down, the strict observance of which would enable any one, without the exercise of good judgment, to dry hops well. There are, perhaps, as many tests as men, by which persons determine when their hops are sufficiently dried. A very simple one, and perhaps as often used as any, is to examine the stems, and when about one-third of them are dry and brittle, the others being more or less wilted, they may be considered about done.

Hops ought not to be removed from the carpet until they are cool. But if necessary to take them off warm, to make room for others, they must be carefully handled or they will break and shell and waste.

As to the time required for drying a kiln of hops, it will depend on circumstances. They may be cured in ten to fourteen hours, though a little more time would be desirable.

Formerly all hops were cured by burning charcoal under them. This was found to answer very well, though of late a better way is found in the use of stoves, with wood for fuel. This is beyond doubt the least expensive, and altogether the best way now in use, and is fast being substituted in place of coal. Two stoves, if rightly put up, are sufficient for any kiln. AN OTSEGO HOP-GROWER.

◆

Burrall's Reaper.

One of the best reapers at the Geneva trial of implements, as our readers of last year are aware, was the one presented by Thomas D. Burrall, which for its simplicity of construction and the perfection of its work, became one of the very few general favorites, among the crowd of intelligent farmers who constituted the spectators of that very interesting exhibition.

We furnish our readers with the above representation of this reaper, showing distinctly the circular platform which receives the cut and falling grain, immediately behind the serrated and vibrating teeth, and giving a general view of the wheel-work, in the compact and simple form which this machine is known to possess.

◆

Effective Action of Manures.

Nothing has had a more retarding influence on the success of chemical agriculture, than the error which has been so frequently committed, of calculating and pronouncing with precision, in advance, the result of the application of mere theoretical estimates. Farmers have been told that analysis would show the exact composition of their soils, and its wants; that if any ingredient should be deficient, the chemist could point out with the accuracy of mathematics, the substance and the quantity that would restore its fertility, without resorting to the random and empirical course of applying a whole set of fertilizers in the shape of common manure. Experiments of this sort have been abundantly tried; a few have succeeded, and these have been widely published; most of them have failed, and the failures have slowly found their way among the intelligent portion of the farming community.

We admit that at first view, the chemical theory appears exceedingly plausible, and promises the most satisfactory results. But there are a number of circumstances which were inadvertently overlooked, and which, had they been taken into account and properly appreciated, would have furnished the strongest grounds for doubting this beautiful theory.

Far more important than the mere presence of fertilizing ingredients, or even the *chemical condition* of those ingredients in many cases, is their mechanical texture and degree of pulverization. We have elsewhere given an instance, furnished by one of the most eminent scientific and practical cultivators of our country, where the complete crushing of the clods of an adhesive soil, and grinding together with them into powder the manure applied to the land, produced an affect upon the subsequent crop *five times* as great as the ordinary operation of manure. How absurd it must be to make strict calculations on the result of a given quantity of yard manure, without ever inquiring into the mode of application—whether on the one hand by spreading in large unbroken lumps, carelessly and imperfectly plowed under, and in a condition wholly useless for plants, or even detrimental in case of drouth—or on the other by a thorough harrowing of the soil and manure together, before turning under, and a repetition of the operation when necessary afterwards for complete intermixture. We have known the most admirable results by this practice, where nothing but fresh coarse manure could be obtained for succulent garden crops, and nearly a total failure under like circumstance without its performance. Even the time of year that manure has been carted on the land, has sometimes had an injurious bearing on the success of its application, simply by the packing and hardening resulting from traveling over its surface when in a wet and adhesive condition. It is a perfectly self-evident truth, that a mixture of unburnt bricks and clods of manure, would afford immeasurably less sustenance to the fine and delicate fibres of growing plants, than the same mixture ground down together into a fine powder.* Hence it may be reasonably believed that the general introduction and free use of pulverizers, as the most effective harrows, clod-crushers and subsoilers, assisted by tile-draining, may be of greater benefit to the whole country than the importation of a million tons of guano.

The chief reason of the extraordinary results of liquid manuring, is the complete manner in which the enriching particles are diffused while in solution through every part of the soil. We here allude to the later mode, which consists in mixing the solid parts of manure thoroughly and freely through large volumes of water, and not to the old mode of applying the liquid portions merely of fresh manure, which impoverishes the land of phosphates and lessens the organic matter, and hence has been mostly discontintued. The only doubt of the proppriety of the more improved mode of applying liquid manure, is on the score of cost in cartage; it is unquestionably much better than the common mode of manuring, but is probably less economical than solid application in connection with finely pulverizing by repeated harrowing.

In addition to the state in which manure exists in the soil, there is another consideration of much importanec in relation to its best and most economical use. Succulent crops, as turneps and cabbages, are rapid growers and require rapid feeding; hence, manure which has undergone a considerable degree of fermention, is found to effect this purpose to better advantage than fresh or entirely unfermented manure. Wheat crops on the contrary, are of more moderate growth, and less rank feeders, and consequently need a less profuse supply. To apply large quantities rich in ammonia to such crops as do not need it, would of course result in waste, and different applications to large feeders would give scanty products. The adaptation of the amount to the specific purpose intended should therefore not be overlooked in estimating the effective value of a a given quantity.

In making the preceding remarks, we wish to be distinctly understood as not wishing to set aside in practical farming, an investigation of the composition and knowledge of the deficient or missing ingredients of soils, as well as the restoration of these by special manures. But independently of several difficulties arising from the variable nature of the soil of the same field, and the very different results in growth which a slightly different chemical condition of those ingredients may give, showing that all the suggestions of science in chemical agriculture must be submitted to rigid experiment—independently of these considerations, all experiments based on the analysis of soils and the use of fertilizers whose constituents are determined, which do not take into full consideration their mechanical texture, can not fail to result in the utmost uncertainty. When, in addition to this, it is remembered that a large portion of the fertility of many of the best soils of the country, are in a great degree lost by their coarse and miserable mechanical condition, resulting from hasty and imperfect tillage and from the want of thorough under-draining, it must be admitted that while much of the attention of scientific farmers has been directed to chemical inquiry, too little, far too little, has been given to the thorough pulverization and intermixture of the rich ingredients which they already possess.

Benefits of Draining.

"*My land don't need draining!*" is frequently the stout assertion of the owner of light loamy soils, on the surface of which water does not stand a day, except in early spring. "How can I know whether draining will do my fields any good?" is the more doubtful inquiry of others who have sometimes seen its beneficial effects. We believe, as a general rule, every acre of ground should be thoroughly and evenly underdrained, wherever it becomes necessary to dig a drain to a cellar—but where the subsoil is so porous that a cellar is dry without an artificial outlet for the water, nothing more is needed for such land. Dig a pit anywhere, three feet deep, and if water remains in it during the usual period of plowing, planting, or cultivating, then, most plainly, that land needs the benefit of underground channels. Some of our readers will recollect the statement of T. G. YEOMANS, in the last volume of *N. Y. Agricultural Transactions*, who regularly drained an apparently high and dry field of light loamy soil, which his neighbors positively assured him, needed nothing of the kind; but whom he convinced by showing the large stream which afterwards rushed out of his main trunk. F. L. OLMSTED, in his *Walks Talks in England*, mentions the case of a gentleman who drained thoroughly and expensively, a piece of high land. All thought him crazy—"the hills were too dry already,"—he was throwing away his money. But he patiently awaited the result, which was that the increased rental soon repaid the outlay, and his land was tripled in value.

---

* A fine illustration of this truth was furnished long ago by the wonderful experiments of Jethro Tull and more lately by that of Smith of Lois-Weedon.

Answers to Inquiries.

THE DAIRY.—What is the best kind of *churn* for the use of a small dairy of some three cows?

What the best kind of *cheese press* for the same, where a family only wish to make enough for their own use? D. B.

The best churn, without any question, for a small dairy, is *Kendall s* cylindrical, costing $2 to $2.50, and to be had at the principal agricultural warehouses, at Albany, Rochester, &c. They are simple, last many years, and can be easily worked by a child.

We cannot speak so confidently about a cheese press, but our impression is, that for a small dairy, *Collins & Stone's* self acting press, smallest size, costing about $5, is the best.

TREATMENT OF SANDY SOILS—SENDING SEEDS BY MAIL.—A. C. CARNES, of Spencer, Tenn., inquires for the best treatise on the management of *sandy soils.* We strongly recommend him to procure the Transactions of the New York State Agricultural Society, Vol. XI., for 1851, where he will find an excellent practical essay of twenty pages on this subject, from the pen of WINSLOW C. WATSON, of Port Kent, Clinton county, N. Y.

With regard to subsoiling—all experiments properly performed, have resulted in greater or less benefit, with scarcely an exception. It would probably be of little advantage in a loose, sandy soil, unless the red clay beneath is reached, in which case an intermixture might be of great benefit. A limited experiment for trial would be perfectly safe.

Seeds of the coarser sort, as corn, beans, &c., may be sent by mail and by express. If in small quantities, the former is least expensive—if large, the latter. Our correspondent can judge by recollecting that an ounce of either may be sent by mail for the trifling sum of six cents—which is enough to begin an experiment.

CRANBERRIES ON UPLAND.—On looking over the Cultivator for the last year, I see inquiries concerning the low Cranberry. I believe they have never been cultivated much on upland, in this part of the country, as they are found growing wild in almost every neighborhood; but I have seen them growing thrifty, and bearing well, on land sufficiently dry for an orchard, among large thrifty apple trees, and dry enough for Indian corn—in fact, no spring was found near them; they rambled to that spot from a low place, where the water run a little while in the spring, when the snow was melting; the rest of the year it was dry enough for any crop. Last summer, in the driest part of the season, I took some from a swamp, and set them in a damp (not wet) place in my garden. They were growing when cold weather set in. I intend to set out more next spring. H. C. WHITTEMORE. *Sheldon, Vt.*

RED ANTS.—In one of the Cultivators of last year, an inquiry was made for an exterminator of *red ants.* Several years ago, my father rented a house, almost overrun with them, and they were destroyed in the following manner:—A piece of shag-bark (hickory bark) was laid upon the shelf in the pantry, where they seemed to be thickest, and it attracted them—indeed it seemed more of a favorite with them than anything they could get. The piece we had, about four inches wide and two feet long, was red with them in an hour or two, when with a sudden jar, they were shaken into the fire, and the bark set as a trap for them again. In our case this was an entire exterminator. C. B. BROWN. *Damascus, Pa., Jan.* 29, 1853.

FEEDING CUT HAY AND MEAL.—I notice in the Country Gentleman of the 17th inst., an inquiry from C. Ingalls, Esq., as to whether cut hay and meal will injure cattle when fed upon it. I have now cut all of my hay, stalks and straw, for my cattle, for six years, and have always fed my fattening stock with a *liberal* quantity of meal upon it, and have never had an animal injured in the way Mr. Ingalls mentions; but on the contrary, when hay *was not* fed with the meal, I have had cattle injured in the way named. To prevent such injuries, I cut hay. J. M. S. *Feb.*, 18, 1853.

STALL FEEDING CATTLE.—Mr. J. OTIS, in stall feeding cattle, I think will find it the best and most economical way in feeding, to grind his grain, even if he goes six miles to mill; mix equal quantities of corn and oats, grind fine, and feed to an ox of 1,600 lbs. live weight, half bushel per day, with cut hay, wet sufficiently to have the meal adhere to the hay when well mixed, given at two feeds, morning and night, with one bushel per day of turneps, carrots, or other kinds of roots. Three months feeding will make very fine beef. In moderate weather keep the cattle in the yard, with good sheds. Stable them when the weather is cold. Almost any kind of coarse fodder may be given once a day.

Other grain may be substituted for corn and oats, of sufficient quantity to give an equal amount of nutriment. Some feeders give to a pair of oxen 1 1-2 bushels of provender a day. My own opinion is that one bushel a day is as much as two oxen can well digest to make it profitable. A. B. *Brooklyn, Conn.*

CULTURE OF THE ONION.—I noticed in the last number of the "Country Gentleman," inquiries for the cause of the growth of scullions. I will answer. There is no doubt, it is late sowing; long experience has convinced me that the seed or condition of the soil has no agency in the matter. Extreme and continued dry weather after sowing, retarding vegetation for weeks, will produce the same effect as late sowing. Onions should be sowed the first time the land is sufficiently dry in the spring. In the spring of 1840, I sowed two acres of onions; the land was raked, and the seed sown before the alleys were made around the piece, the alleys being made by a line. When the onions appeared, they did not extend on one side to the alley, varying from six to eighteen inches. To remedy the mistake, the rows were marked out to the alley, and the same kind of seed sown. The onions came up, and a vigorous growth to all appearance, soon made them equal to that portion first sown; and after the bottoms began to form, the tops of the last sown were larger, and gave fair promise for a much greater crop. The result was, the first sown were proper onions, with very few exceptions; the last were mostly scullions, possessing so much of the character, that breaking them down, and other experiments to force them to bottom, did not in the least change their relation to onions. W. RISLEY. *Fredonia, Feb.* 26, 1853.

ONE-HORSE REAPERS.—(H. *Fetchville, Vt.*) We know of no one-horse reaping machine, nor do we think any would be likely to be useful except in rare instances, as such a one would require the same attendance as a two-horse reaper, and perform only half the work.

FANCY LOP-EARED RABBITS.—*J. G. H.* We know of none at present, for sale, in this vicinity. They can, we presume, be had of F. ROTCH, Esq., and R. H. VAN RENSSELAER, Esq., of Morris, Otsego co., N. Y. Price, $12 to $15 per pair.

BASKET WILLOW.—"A Constant Reader" is referred to the 5th Number of the Country Gentleman or to the Cultivator for March, for answers to his inquiries on this subject.

EMERY'S MOWER.—We state, in answer to several inquiries, that the price of this machine is to be $110—the Mower and Reaper combined, $120.

BULLOCK'S SEED PLANTER.—*J. M. K.* We know nothing personally of the operation of this planter in the field, but judging from its operation on our office floor, we should think it would prove useful.

AMERICAN HERD BOOK.—*J. M.* This work can be procured of C. M. Saxton, Bookseller, New-York.—Price $3.

Information Wanted.

Cement Water Pipes.—I wish to inquire whether any of your numerous subscribers, have used water lime with gravel, to make pipes to force water through, with a hydraulic ram; and if so, how is it liked, and what the expense was per rod—also how prepared and how put down. I should like to know whether the machines are all alike, and if not which is the best; whether the glass or metal ball. S. S. Morehouse. *Avon, March* 1, 1853.

A Question for Practical Farmers.—Why is it that when white and yellow corn are planted adjacently, the yellow will mix with the white, but the white not with the yellow? H. *Kelloggsville, N. N., March,* 1853.

Loss from Moving Hay.—A correspondent wishes to be informed as to the actual loss resulting from removing hay from one barn to another, by its being exposed to the air. For instance, "suppose I put fifty tons of hay into the large barn in the haying season, and when the foddering season comes, feed it out, taking care not to expose it to the air any more than is necessary. Now how many tons of hay must I draw from the out barn, to be equal in value to the fifty tons put into the large barn in haying time, the hay all being of the same quality?"

Use of Lime.—Will some one of your subscribers, who has experimented in the use of lime, inform me what he considers the best mode of applying lime—the quantity per acre for corn, potatoes or broom-corn; also for a top dressing on mowing or pasture—whether he would use it with plaster, ashes, or any other substance? Is it necessary to analyze the soil, to determine whether it may be applied to advantage? Any information on this subject would be received as a favor. A Subscriber.

Portable Hay Press.—Have you any better portable Hay-press in use in your section of the country, than "Bullock's Patent," and is this a *good press* and portable, without adding so much to the cost that it would be "paying too dear for the whistle?" Would it be better for me to buy the press that turns out 200 lb. bales, or the one that bales 300 lbs.? Will some one who has experience answer the above questions.—A. S. L. *Loudon, Tenn.*

Basket Willow.—I wish to inquire about the cutting of the willow, and preparing them for market. How and at what time are they to be cut? While the bark will peel? And is the bark to be stripped off? In short, how are they to be cut and prepared for market, and what price will they bring? Inasmuch as the subject is before the public, please give all the information available, and you will oblige, perhaps, many subscribers, surely one. R. A. Finney. *Elizabethtown, Essex co., N. Y., Feb.* 5, 1853.

☞ If any of your correspondents can tell the *cause* or *cure* for the failure and death of young thrifty Maple trees, of six or seven years growth, (as I have observed several such cases without any apparent cause,) I should like to know through the Cultivator. H. G.

Culture of the Hop.—I have read the communications of An Otsego Hop Grower, and shall be greatly obliged, if he will inform me if at the time of grubbing in the spring, any soil ought to be removed from the top of the hill. Also whether the old root from which the vine sprung the previous year, should be permitted to remain, or should be cut off. L. T. S.

Onions on Muck-Sod.—An exchange paper informs us, that C. T. Tucker, of Decator, had raised luxuriant crops of onions, (as well as corn and potatoes,) on the inverted sod of reclaimed marsh. Some were of great size, being as large as a tea-saucer, while those on highly enriched upland were not half the size.

Agricultural Societies.

New-York State.—Proceedings of the Executive Committee, March 3 — Present, J. Delafield, E. P. Prentice, Geo. Vail, J. Beekman Findlay, Wm. Kelley, B. B. Kirtland, Charles Morrell, B. P. Johnson.

Grasses.—The Secretary was directed to procure ten bushels of each variety of grass seeds, which were recommended by the committee at a former meeting for trial. It is so late in the season that the seeds will not be obtained in time for spring sowing, but they will be procured in time for another season; and gentlemen desirous of experimenting with these seeds are requested to forward their names to the Secretary at as early a day as practicable. The annexed is the resolution of the Society, and the varieties of grasses selected for trial:

Mr. Kelly, from the committee on the subject of procuring a variety of grass seeds for cultivation in this State, reported, recommending that "a system of trial and comparison of the grasses enumerated* be made by farmers, in various parts of the state, whose interest in the cause will induce them to undertake and carefully carry out the experiment, by sowing not less than one-eighth of an acre of each sort above named; and that the corresponding secretary be directed to procure, by importation or purchase, an ample supply of seeds, and furnish them in his discretion to such persons as shall agree to prosecute the experiments in conformity with directions to be given, and to report the result to the Society, in such form as may be prescribed."

The premium list was taken up and completed, and ordered published.

New-York State.—The Executive Committee of the New-York State Ag. Society have adopted the following regulations in regard to fine wooled sheep, (Saxon, Merino, and crosses between these breeds,) in the hope that greater justice will be done to exhibitors than heretofore—and the true merits of the sheep exhibited will be more satisfactorily ascertained.

Requirements.—The number of ewes to be exhibited for premium to be five, and they must each have suckled a lamb the present season.

1. The fleeces must be sent to the Secretary at the Agricultural Rooms, immediately after shearing, with the private mark of the owner, and a mark placed upon each sheep corresponding to that sent the Secretary—and a lock of wool left on each sheep. The Secretary to record these marks in a book to be provided for the purpose, and to be shown to no person until the fleeces are produced at the Fair.
2. A statement must also be sent containing the age of each sheep—how the sheep have been kept—the date when shorn, and that the fleece was but of one year's growth. The length of time after washing when the fleece was shorn—and that each sheep had suckled a lamb up to the time of shearing.
3. The Middlesex Mills standard for sorting the fleece to be adopted, and the Secretary is to send each fleece to the assorter, marked by him, to be weighed, examined, and noted, as to its various qualities.
4. The fleece to be carefully cleansed, dried and weighed, and each fleece to be put up separate and returned to the Secretary with the sorter's report.
5. The sheep to be exhibited at the Fair, and to be examined by the judges.
6. After the judges have examined the sheep, the fleeces are to be submitted to them, with the report of the sorter, and with the private marks of the Secretary —when the judges will make their awards.

Each exhibitor must present an affidavit to the Secretary, for the use of the judges, that the sheep exhibited are the same that the fleeces were taken from, which were sent to the Secretary for being assorted and examined, and that the statement furnished by him to the Secretary is in all respects correct.

Bucks.—The same rules as to shearing, marking, and statements as to age, feeding, &c., will be required to be verified in like manner.

The Dairy.

Caledonia County, Vermont.

The county of Caledonia contains an area of 700 square miles. In agricultural products it is one of the best in Vermont. The soil is naturally fertile, easy of cultivation, and under good management returns the most ample harvests. Her intelligent and enterprising farmers are not at all ignorant of their profession. Many of them know full well the capabilities of their farms, and are not slow in improving the knowledge they possess, and applying it to the very best advantage. The most important and profitable branch of husbandry carried on by the farmers of this county, is the dairy. It will compare favorably with the best counties in New-York. The Scotch farmers in the towns of Ryegate and Barnet, are renowned for their success in the manufacture of butter. For a number of years they have been awarded the highest premiums in Boston market, for the best article produced in New-England. I will notice a few dairies which I visited, and the method usually practiced in making and preserving their butter.

Mr. Hugh S. Gibson, of Ryegate, has a dairy of 20 cows. He sold the past year 3,000 pounds of butter, for 27 cents per pound. He reserved 200 pounds for family use, making 3,200 pounds, worth $864, or $43.20 per cow. He raised eleven calves entirely on skim milk, worth $6.00 a piece.

Mr. John Gibson, from three cows, made in 1852, 630 pounds, or 210 pounds per cow. Many other Scotch dairies produce from 150 to 200 pounds per cow. The Scotch dairy women are very particular and nice in their operations. They do not suffer the milk to sour before taking off the cream. It usually stands from 36 to 48 hours, according to the state of the weather. After this time, they say a sort of "*cheesy substance*" rises, which makes the butter stringy and tough. The cream is churned at a temperatue of 62°—the thermometer churn being used. The butter is considered best when the process of churning is continued one hour. When churned too rapidly, it is apt to be *salvey*. After the buttermilk is drawn off, it is thoroughly washed in cold water, (in summer ice water is used,) constantly drawing it off, till it becomes perfectly clear, and every particle of buttermilk is separated. It is then taken out and salted, with one ounce to a pound of butter; five or six tea-spoons full of loaf sugar are added to every 30 pounds. It is packed very solid, in 50 pound tubs, room being left on top in each tub, to spread fine salt, on thin cotton or linen cloth. Afterwards a pure brine is put on sufficient to cover the butter, and it is set away in a dry, cool cellar. The less the butter is handled, the nicer it will be.

The Scotch dairy cows are of the native breed, improved by selecting the very best, and keeping in high condition. In the spring, a few weeks before calving, they are liberally fed with turneps, carrots, and a little oat meal, and are not turned to grass till a full bite is afforded. The pastures all over Caledonia county are covered with a luxuriant growth of white clover. It grows spontaneously, and for grazing purposes its superiority is unequaled. It seems to be the object of the Scotch dairymen to gain the greatest possible profits from their cows; and this is accomplished by *keeping well.* "It is the first thing requisite," said an old Scotchman—"Keep *your cows well*, and they'll make amends for it."

The yankee farmers in the vicinity, are successfully competing with their scotch neighbors.—Wherever *profits* are concerned, they are sure to get a full share of them. The town of Hardwick annually produces between 80 and 100 tons of butter.

Mr. Jeremiah B. Philbrook, of that town, made from three cows, in 1851, 900 pounds., 800 of which sold for 18 cents per pound. He fed his cows upon oat-meal and potatoes—liberally of course; his object being to see what could be done by high feeding.

Bliss N. Davis, Esq., of Danville, whose farm is in Hardwick, sold from 13 cows 1800 pounds of butter—1600 for 25 cents, and 200 for 20 cents per pound. Besides this, he supplied a large family. His accomplished daughter deserves all praise, for the success which attended her efforts last summer, in this department, and her example is worthy of imitation by all the daughters of the land. Too many now-a-days consider it beneath their dignity, to take hold and manage the dairy. They aspire to higher honors. It is a sufficient recommendation for them to know how to sing and apply the piano admirably, talk French, and possess a taste for the fashionable literature of the day. But the idea of obtaining a practical knowledge of household business, of knowing how to make butter and cheese, is preposterous I am wandering from my subject; however, it is quite refreshing to find an occasional instance, where the daughter places a practical acquaintance with matters of the dairy, on the list of her accomplishments.

In my next, I will give you an account of the stock and crops of Caledonia county. W. A. W.

* * *

Churning in Winter.—Many a housewife has been disappointed and disheartened by an entire failure, after three or four hours churning in winter, and at a time when the scarcity of milk and the high price of butter, has rendered success particularly desirable. We believe this failure is in nearly every instance owing to the coldnesss of the room in which the milk is kept during the rising of the cream. Let the milk stand in a warm place, and the difficulty will be, in most cases, obviated. A still more effectual remedy is to scald the milk before placing it in vessels.

Accurate experiments were made some years since, by Prof. Traill, of Scotland, which throw some light on winter churning, of which the following is a condensed statement—three quarts of milk being used in each experiment, the cream rising for 39 hours:

Experiment 1. Cream sweet, with half a pint of cold water, churned 27 minutes, temperature rising from 62° to 70°. producing 1,386 grains of good butter. Ex. 2. Cream and milk together, sweet; churned three hours, cold water occasionally added, no butter. Ex. 3. Cream kept two days, half a pint of cold water, churned 20 minutes, temperature rising from 54° to 63°, and producing 1,756 grains of good butter. Ex. 4. Cream and milk, sour, kept two days, half a pint of cold water, churned 1 hour and 50 minutes, producing 1,968 grains of good but paler butter. Ex. 5. Cream and milk, after standing 39 hours as usual, heated to 156°, and skimmed next day, produced 1,968 grains of good yellow butter.

REMARKABLE PRODUCT OF BUTTER.—We have been furnished with a statement authenticated by oath, showing that from the milk of a heifer called "Cherry," calved June 14, 1849, owned by Miss MARY BRICE of New-Scotland, in this county, there was made in one hundred days, from Nov. 11th, 1852, *one hundred and three pounds of butter*, which was sold in this city for $25.75. The amount of skimmed and buttermilk was 1,432 quarts, worth at 2 cents per quart, $28.64. She dropped her second calf on the 4th of Nov., and it was raised on the skim milk, which had, to provide for the wants of the calf, to be skimmed before the cream had all risen. It was thought that had the milk been permitted to stand until the cream could all have been secured, the product of butter would have been increased at least 14 pounds, which would have increased the total income from this three-year old heifer, for 100 days, to $57.89. We are not informed as to the breed of cattle to which "Cherry" belongs, nor as to the amount of milk given. "Her feed," says our correspondent, "from Nov. 11, to Dec. 11, was nothing but the poor frozen pasture—from Dec. 11, to Jan. 1, owing to the very high price of hay, she was sparingly fed on poor hay, with about four quarts of buckwheat bran twice a day—from Jan. 1, to Jan. 25, she had good hay and same quantity of buckwheat bran—from the 25th to the close of the experiment, there was added to the above feed, about four quarts of cut potatoes twice a day." "It is," continues our correspondent, "the generally received opinion, that cows do not arrive at maturity for butter making, until six years old; and I think it reasonable to suppose that when Cherry arrives at that age, she will produce in the same time, double the amount of butter above testified to."

TURNEPS AND MILK.—It often happens that the number of remedies for any evil indicates their inefficiency, but the following, lately recommended, may be worth trying: 1. Remove the fibrous roots and every portion of leaf, from the turneps, which it is said, chiefly contribute to the taint of the milk. 2. Before going to milk, place a kettle of water upon the fire, and on returning, add to every gallon of new milk, half a pint of boiling water, (or a sixteenth,) stirring both a minute or two, before pouring out into the earthen or glass vessels.

We observe among the correspondence of some of the English agricultural papers, a statement that in Cornwall, where the cream is separated by fire, and churns are not used, the butter being "made with the hand in a few minutes," the taste of turneps is unknown; and also the following, to prevent this taste, which appears more likely to succeed than the other remedies. Feed the cows with sliced mangold wurtzel, with a small quantity of crushed oats added, together with plenty of sweet soft meadow hay, and use *no turneps* under any circumstances, and all complaints will cease.

A GOOD COW.—W. Ellsworth, of Mayfield, O., has a cow that gave 52½ lbs. of milk per day, during 21 successive days, and gave as high as 3 lbs. 4 oz. of butter per day, her feed being hay and 8 lbs. of bran per day.

FATTENING COWS ON APPLES.—A correspondent of the New-England Farmer fattened a cow on apples in 35 days, with the addition of seven baskets of what is termed cow-corn, in the year. She gained in one week 32 lbs. The beef was of the best quality.

Condensed Correspondence.

THE YAM POTATO.—I have grown this excellent potato for some years past, and have found it of most excellent eating quality, and superior to all other kinds I have ever tried, in resisting the rot. Being of hardier constitution and more solid texture, it retains its eating qualities later in the spring than the other varieties.—The character given to it for productiveness, by Mr. SMITH, who introduced it into New-York, and highly commended it to the attention of agriculturists, I am prepared to endorse. J. M. WARD. *Newark, N. J.*

POTATO BLIGHT.—Will you do me the favor to correct a mistake made in the extract from the paper I wrote you, on the cause of the rot. It is the water in the roots and bulbs or tubers, and not in the balls, as printed. It has been extensively the practice, to plant potatoes on wet ground, without draining. That is is one great cause of the disease, causing them to be less productive, and more liable to rot on any ground. The potato is not the only plant that is injured by flooding at the roots. The past season has proved my belief correct. There was no heavy rains in this region, from about April until late in Sept., but frequent refreshing showers. There was a very abundant crop of potatoes, and very sound ones, except a few in low grounds, that did not get ripe until a heavy rain came in the fall.—These rotted badly. PHINEAS PRATT. *Deep River, Feb.*, 1853.

SUGGESTIONS TO ADVERTISERS—PRICES.—I wish to suggest the propriety of always stating some price, to those who are in the habit of advertising property for sale. More than three-fourths of the money paid for advertising is a total loss to the advertiser, for this reason, besides failing in accomplishing the ends for which it is designed. It is annoying to take up a paper and read an advertisement of a beautiful farm somewhere for sale, without a price annexed. A would-be purchaser knows not whether it will come within his means or not, or whether it is worth as much money as he would like to invest in real estate. Nor can he know, without writing through the mail, and paying postage both ways, perhaps, and few will take the trouble to do that, and the affair is soon forgotten. The same rule holds good with implements and machinery.

I once knew three farms advertised in a monthly New-York paper, and the price carefully stated. Before another month came round, every one of them had been sold for cash at the advertised price. H. S. *Felchville, Vt.*

CHITTAGONGS.—Speaking of hens, I bought, on the 25th October last, a Chittagong hen with nine chickens, some six weeks old. She has since weaned the chickens, and laid one litter of 26 eggs, another of 14, and has just finished a third litter of 16, making 56 eggs since Nov. 9th. Whether that is worth telling of, I don't know. The hen is only a year old this month. C. S. HUBBARD. *Deep River, Feb.* 18, 1853.

ARTIFICIAL ICE—*To Mechanical Inventors.*—We want a cheap, portable machine to press pure snow from the drift into cakes of ice.

Ice would be much more extensively used, if it could be more conveniently procured. The great distance that many persons would have to go, to cut it on ponds or lakes, is very discouraging; and if your active heads and hands could provide us with such machine, it would soon be in great demand. Every independent householder ought to have an ice-house.

If the tenacity of snow prepared in this manner, should not be sufficient, it might be sprinkled with water on a cold night, when the mercury in Fahrenheit stands at zero.

With the advantages of pressing hay, cotton, and other loose substances, you must all be acquainted; and if clay without preparation, can be thrown into a brick machine, and come forth a perfect article, why may not snow undergo a similar process with equal advantage?

Horticultural Department.

Horticultural Notes.

The Circle of Pears.—Keeping apples the year round, so as to furnish a supply for every day of the year, is an old experiment, which all good cultivators have found no difficulty in performing. But with pears it is quite a different thing, and many, not understanding all the conditions for raising, gathering, keeping, and ripening the winter varieties, have come to the conclusion that winter pears are worthless. As a proof, however, of what may be accomplished, when skill and experience direct in their management, Col. Wilder, states that the *Easter Beurre, Doyenne d'hiver nouveau, Beurre Bretoneau.* and most of those with a thick, rough epidermis, are readily kept through the winter and spring, and into summer, and that some of this character he had preserved "in perfect condition the past season, and had them in eating, with the *Madeleine,* in August."

Handsome and Crooked Trees from Nurserymen.—A very sensible article on this subject appears in a late number of the Genesee Farmer, in which, after alluding to the great difference in the size and beauty of trees of different sorts, although of the same age, and similarly cultivated and treated, the editor points out the great disappointment which this difference sometimes causes to purchasers. The *Gravenstein, Baldwin, Northern Spy, Rambo, Late Strawberry,* and others, are rapid and straight growers, and any purchaser would be sure to be pleased with any trees he may get of these varieties, even with very little pains in selection. The same may be said of *Bartlett, Madeleine, Angouleme. Buffum,* and *Louise Bonne of Jersey* pears; *Black Tartarian, Napoleon Bigarreau,* and *Downer* cherries; *Washington* and *Imperial Gage* plums, &c. But if he orders *Early Joe, Melon,* or *Red Canada* apples, or *Marie Louise, Winter Nelis,* or *Seckel* pears; or *Plumstone Morello* or *Mayduke* cherries; even if whole rows are searched for the best, the nurseryman is sure to get plenty of abuse, for "such stunted, crooked, horrible trees." It is recommended that nurserymen designate the character of growth in their catalogues, that those who want *handsome* trees may know which to order; after which, *soundness, genuineness, good roots,* and *good packing,* be only required for the stunted and crooked growers.

Transplanting Dwarf Pears.—Cultivators are aware that the best trees are those which are worked as near the root as practicable; as deep planting should in all cases be avoided. Col. Wilder states that he has sometimes received dwarf pears from Europe grafted six or eight inches above the surface, in which cases he uniformly plants the whole of the root under ground, counteracting the deleterious effects of deep planting, by removing the long shank below with the lower and now inactive roots.

Bleeker's Meadow Pear.—This pear, which as grown in New York, we have usually regarded as about fourth-rate, is likely to prove of considerable value, in its place. Although commonly supposed to ripen about mid-autumn, it will keep into winter at the north, and good specimens have been kept even as late as mid-winter, some of which were exhibited by Ellwanger & Barry at the winter meeting of the N. Y. State Agricultural Society. The fine and remarkably vigorous growth of the tree and its great productiveness, and the fine quality of the fruit *for stewing*, are likely to render this a valuable culinary sort, especially as good cooking pears for winter use are quite valuable. In Pennsylvania, where this variety is considerably known as the *Feaster*, it succeeds much better than here, as a table fruit, and when well ripened, sometimes becomes of really fine quality.

Winter Pears in France.

We observe in the late report of the proceedings of the Horticultural Society of the Department of Lower Seine, the following names of the pears exhibited during the last winter and spring, which will show what sorts are there cultivated and kept during this usual season of dearth for fresh pears:

On the 6th of December, Le Cure, (Winkfield.) Franchipane.
" 7th of January, Easter Beurre. Fortunee, Doyenne d'Alencon, and very fine Passe Colmars.
" 4th of February, Sageret, Passe Colmar, Beurre d'Hiver Nouveau. and Easter Beurre.
" 27th of March, Passe Colmars.
" 5th of May, Duchesse de Berry d'Hiver.
" 15th of May, Bon Chretien de Naples, described as only for cooking, but valuable for its long keeping, handsome form, and brilliant coloring

Grapes for Cold Houses.

J. Fisk Allen, of Salem, Mass., widely known as a most skillful cultivator of the grape, succeeds admirably, by means of his forcing, cold, and retarding houses, in furnishing a supply of this delicious fruit during the entire yearly circle. Forcing grapes, so as to ripen them by the first days of summer; and raising them in cold houses for a supply throughout autumn, are well understood and commonly practiced. A retarding house, for winter ripening, and for keeping them hanging upon the vines in safety till wanted, is a greater rarity, and it may prove very desirable with those who shall attempt it, to know what sorts do best for this purpose. The late report of the fruit committee of the Massachusetts Horticultural Society, furnishes the following list for this purpose, from J. F. Allen, which he states is the result of ten years experiment:—

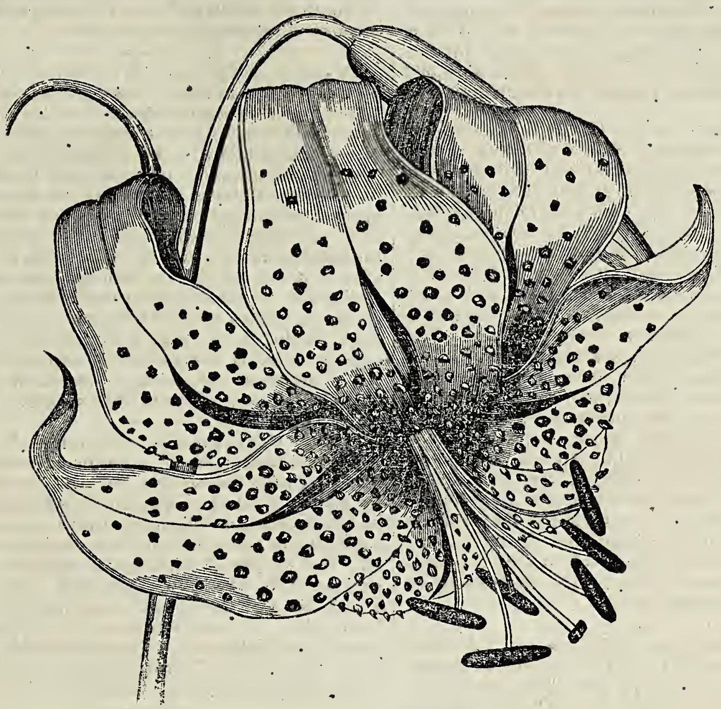
Those which continue fresh or without drying, in the retarding house, are Prince Albert, Queen of Nice, Syrian Porteau Noir, Black Portugal, Whortley Hall Seedling, Muscat of Alexandria.

Black Hamburgh, Wilmot's New Black Hamburgh, and Victoria Hamburgh, dry up some.

The following dry badly:—All the Fontignans, Black, White and Grizzly, and Zinfindal; Black St. Peter's is uncertain.

The Lily.

Long has the lily been dignified with the appellation of the "Patrician," among flowers. The emblem at once of Dignity and of Innocence, it has ever held a deservedly high place in the temple of Flora. Yet, until Dr. Siebold, now nearly twenty years ago, introduced to us the majestic "Lilium lancifolium," from Japan, the extent of variety as well as beauty of the family was unknown. For none of the other species possess the extraordinary crystaline radiance of the pearl-like glands



Lilium Lancifolium.

sprinkled over the petals of the L. lancifolium speciosum. Our illustration gives a good idea of the shape and form of the flower; but without colors, it is impossible to convey any adequate idea of the beauty of the roseate hue with which the flower is suffused.

The culture of this species of lily is very simple. The compost for them should be sandy loam and well rotted hot-bed manure, in equal parts, and a sixth part of white sand. They will be found to grow much stronger, and produce finer and more numerous flowers in such a compost, than in heath mold only, as it is the practice of many to grow them. This may be relied on from our own experience, extended over many years of their culture. They should be potted the beginning of January, for they commence their annual growth *at root* thus early, and if delayed, the rootlets from the bulb are liable to be injured. The bulbs should be shaken out from the old mold entirely, and placed two inches under the surface, in a pot of a size that leaves two inches between the bulb and the side of the pot, and then put in a greenhouse, or a cold frame. But no water should be given until it is observed to shoot up through the earth. Then water must be supplied gradually at first, but liberally as the growth progresses. In about six weeks from the appearance of the stem above the earth, it may be shifted with benefit into a pot two sizes larger than the former, taking care not to break the ball of earth, and to place it one inch *deeper* in this pot than it was in the last. The middle of May the pots may be placed out of doors, where they get the morning sun only, for two or three hours, and they will bloom the finer for it. But the sides of the pots should be protected by moss or some non-conductor of heat, from the action of the sun. After blooming, continue watering till the leaves begin to turn yellow, then discontinue it, and let the bulbs rest till the end of the year.

◆

Answers to Inquiries.

Comstock's "Terra Culture."—Do you know anything of Russell Comstock's *Terra* Culture?" Is it humbug? We are about trying to raise money to purchase his mode of Culture. Yours, Geo. Talbot. *Centerville, Michigan.*

Having always regarded this scheme as a humbug, we never took the trouble to inquire into and pay for the secret. We observe, however, that the Rural New Yorker has "taken the responsibility" of divulging it; or, as the self-styled "Professor" terms it, of "disclosing the disclosures." The theory appears to be simply this—that the part in every plant just at the junction of the root and trunk or stalk, is the *seat of life;* hence setting a plant too deep, or too shallow, affects the seat of life, and the plant or tree dies or is injured. How many seats of life has a gooseberry bush or grape vine, which will afford by cuttings and layers, a thousand new plants? or how many has a potatoe or a paulownia, whose roots will afford as many? Is a man's nose the seat of life, because if covered he will be smothered and die?

To this theory, it appears he has attached many valuable and well known facts in cultivation—valuable, and well worth *the dollar* to those who had never learned them before—the chief of which is comprised in "following nature" in planting, transplanting, omission of pruning, &c. This is the substance, we learn, of some four or five hours of tedious lecturing, and for which $500,000 were asked the State Legislature for divulging.

Cemetery Trees.—(R. L. G., Edmeston, Otsego co.) The Weeping Willow will grow as well on dry upland as on any other soil, provided it is fertile. Its growth will be greatly accelerated by frequent irrigation, not with a mere surface watering. It will be more likely to escape injury from the severe cold of Otsego county, if on upland, and out of the reach of valley frosts. The American Cypress is not an evergreen, and is not particularly adapted to cemetery planting; it is probably rather tender for Otsego county. The European Cypress, although a beautiful evergreen, growing somewhat in the form of a Lombardy Poplar, is still more tender, and will not at all endure the winters of the northern states. A few of the best trees for the above purpose, are the Irish Yew, Balsam Fir, White Spruce, Silver Fir, Hemlock, Red Cedar, with a very few of the Mountain Ash. The introduction of a few of the finest climbers would much relieve the stiffness otherwise apparent in a plantation chiefly of evergreens. These can all be had at any principal nursery, at prices of about fifty cents each, or more for larger specimens.

Prairie Roses and Wistaria.—("A Subscriber," Grafton, Vt.) These highly ornamental runners are propagated with great ease by layers. Good rooted plants of the Wistaria, and of a large number of varieties of the Prairie rose, may be obtained of nearly all nurserymen. They all flourish best in a deep rich soil, which is indeed absolutely essential to the success of the Wistaria. All perfectly hardy.

Fruit Trees on Stony Soils.—H. Stearns, of Felchville, Vt., inquires if it "will pay to mow the weeds and grass in an orchard of young fruit trees, where it is too rocky to cultivate with the plow, and rake them around the trees for mulching, and forego the profits of pasturing the land."

The advantages of deep, rich, well-cultivated land, in promoting the rapid growth of fruit trees, and in increasing the extent of the crop, as well as the fairness and high quality of the fruit, are so extraordinary, that in all *practicable* instances the very best land should be selected for an orchard. But where circumstances entirely preclude this selection of land, and stony ground must be taken from necessity, the mode proposed by our correspondent may be regarded as next best. Deep and wide mulching, although by no means equal to good cultivation, is far superior o the more common practice of neglect; and it is altogether probable that when mulching is well attended to, young trees will do decidedly better on hard, stony land, than on the best soils, where they are permitted to become choked with weeds and grass. It must never be forgotten that the mulching is to be removed after the dry season passes, so as to prevent injury from mice.

In planting trees on such stony soils, those varieties should be selected which possess great vigor and hardiness of growth, and whose fruit is always fair, even under poor culture. Perhaps no sort is equal in this particular to the Rhode Island Greening. The Roxbury Russet, Baldwin, Autmun Strawberry, Peck's Pleasant, and others, are also of unusually fair exterior.

Culture of Onions.—Wm. Cowen, of West Exeter, N. Y., inquires for a mode of cultivating onions, as at present one-half of his crops become scullions, without any assignable cause. Never having met with this difficulty, we can only suggest the propriety of procuring the *best seed* from some reliable seedsman; to manure the ground well, if practicable, with fowl or hog manure, or with well decayed cattle manure, all thoroughly mixed with the soil, with a dressing of soot about the time of sowing, and soap-suds during the previous winter; and of trying the remedy sometimes adopted by gardeners to prevent thick necks in the plants during wet seasons, namely, bending down the tops with the hoe handle or wooden rake-head, to check their rapid growth and cause them to bulb sooner.

Cotton Covering for Hot-beds.—M. Wynkoop, of Catskill, N. Y., asks for information in relation to the use of cotton cloth as a substitute for glass in hot-beds. The cotton is first stretched on the frames, and then coated with a composition consisting of three pints of best old boiled linseed oil, four ounces of white resin, and an ounce of sugar of lead; the latter being first ground with a little oil, and the oil and resin heated to make them mix. A coat of this should be applied every season just before use. The cost of this mode is about one-fourth of glass, and for most common purposes, answers about as well.

Maturity of Scions.—I have a number of apple trees that I commenced grafting last spring, that I wish to finish the coming spring with the same kind, and as I cannot get scions in this vicinity, I should like to know whether scions cut from these trees will answer to set. L. N.

There is no objection whatever, to cutting scions from shoots made from last year's grafts, except that the growth being rather more vigorous and succulent, they will not be quite so likely to take. The more matured and hardened the wood, the better will be the success of the operation, and this is the sole advantage of matured wood.

Hedges.—Will you give us, through the Cultivator, an article on the subject of Hedge Fence? the best plant adapted to that purpose, the proper mode of cultivation, the time required to make a fence, and the manner of propagating the plant. Also, what plant, if any, is adapted to marshy ground? H. H. Tuthill. *Kelloggsville, Feb.,* 1853.

The two "plants" that have been the most extensively approved for hedges, are the Buckthorn and Osage Orange. The Buckthorn is the hardiest and therefore best adapted to the extreme northern portion of the Union; and it possesses the advantage of being as easily raised from seed as apple trees, and of being as easily transplanted as a current bush. It must be very bad treatment that would destroy one in a hundred by removal. The only objection to the Buckthorn is its want of thorns, the sharp ends of its shoots forming its only armor. The Osage Orange, on the other hand, is so numerously furnished with sharp thorns, that any ordinary animal would not attempt to pass it, and the boy who should presume to do so would probably remember the encounter for years. But the plants are more difficult to raise or transplant, and they are too tender for the extreme north, but are quite hardy enough for the climate of Kelloggsville, or any other place where the peach tree is not killed by winter. Shearing and compact growing, makes it much hardier than under ordinary circumstances. The *American Arbor Vitæ* (or white cedar of Western New York, but not the true white cedar,) is an excellent hedge plant, as it forms, by shearing, a dense wall of verdure, both in winter and in summer, through which domestic animals are not tempted to pass. This and the Buckthorn would be best for marshy ground.

Before planting a hedge, the ground should be sub-soiled and trench plowed a foot and a half deep, and well enriched with manure, thoroughly incorporated with harrowing. We have known hedges to linger along for ten years, before reaching maturity, which would have been efficient in four years, by deep soil and good tillage. Select the plants in such a manner that those of nearly equal size may be together, and then the large will not overtop and check the small ones. The distance should be about six or eight inches in the row—the tops should be cut off to about three inches of the ground—the fine roots well spread out, and carefully filled in with fine earth—and the roots, before setting, kept constantly moist by a covering of earth.

The plants being cut off to within three inches of the earth, will sprout up thickly at the bottom of the hedge; the next spring the shoots are to be again cut off within six inches of the previous year's cut; the third year eight inches, the fourth year a foot, &c., which will give the whole hedge a thick matted texture, like wool in felt, so that if a portion of it is shaken by the hand, it will shake rods of it on either side. One great leading cause of failure in making hedges, is that the owners "can't bear" to cut down the fine thrifty shoots, according to these directions, and consequently they grow up long-legged, and full of pig holes below. We have also seen some otherwise good Buckthorn hedges much injured by being left broad at the top, shading the lower portions, instead of shearing up to a sharp peak at top. Hedges will never succeed well under the dense shade of large trees. Cultivation during their growth, is as necessary as for a field of corn—the earth must be kept clean and mellow on each side.

"I shall look with eager interest to the Horticultural Department. Although there is a list of fruit recommended for general cultivation, for instance about forty pears, I know not which is the best. If a person wishes 20 of the best varieties, how shall he determine? I hope your paper will give the information desired. SAMUEL BURRITT." *Union Vale, Susquehanna Co., Pa., March* 12, 1853.

The following list comprises twenty excellent pears, and if a smaller selection is wanted, those in *italics* may be taken as the best of the twenty: *Madeleine*, Doyenne d' Ete, Osband's Summer, Golden Bilboa, Rostiezer, *Tyson*, *Bartlett*, *Washington*, *Flemish Beauty*, *White Doyenne*, *Louise Bonne of Jersey*, Beurre Bosc, Autumn Paradise, Beurre d' Anjou, Dix, Fulton, *Winkfield*, Glout Morceau, Doyenne gris d' Hiver, Easter Beurre.

QUINCE STOCKS—FOREIGN GRAPES FOR MARKET.—I wish to inquire if quince stocks raised from seed of the common quince, will answer to bud the pear on. Also, whether raising the Black Hamburgh and other foreign grapes under glass, can be made profitable for market. An answer to these will oblige H. A.

The common or Orange Quince, for most varieties of the pear, does not succeed so well as the French Quince—some sorts, indeed, that succeed well for a time on the latter, absolutely refuse to grow on the former. There are, however, a few pears, that are so much at home on quince stocks, as to succeed nearly or quite as well on the common quince as on any other, among which we may name the Louise Bonne of Jersey and Angouleme.

With regard to grape-houses for marketing, our own observations lead to the conclusion that on a large scale, systematically and *skillfully* conducted near a large city market, raising the Black Hamburgh may afford a fair, but not heavy profit. In ordinary cases it pays expenses, affords the family a beautiful luxury, and the grape house is an attractive ornament.

The Augusta Rose.

This rose, which has been described in former volumes of the Horticulturist, is this spring for the first time offered to the public, by its proprietors, Messrs. THORP, SMITH, HANCHETT & Co., of Syracuse. It was raised from seed gathered in the garden at Mount Vernon, by Hon. JAMES MATTHEWS, M. C. of Ohio, who, finding it to be superior to any rose with which he was acquainted, and believing it to be worthy of extensive propagation, presented it to Mr. FAHNESTOCK, one of the above firm, who have propagated it for two or three years past, and found it to equal the high encomiums given to it by Mr. M. Great as is the list of roses already enumerated in the catalogues of our nurserymen, we are inclined to think the "Augusta" will prove a very valuable acquisition. It is represented by those who have seen it in the grounds of the proprietors at Syracuse, as a variety of rare, and in some respects, unequalled excellence—a climber of rapid and vigorous growth, with rich foliage, and a profuse and perpetual bloomer. The flowers are a fine yellow, deeper than the Cloth of Gold, and of a delicious fragrance, not surpassed by the finest of the Tea roses With such qualities it cannot fail to be a universal favorite.

INFLUENCE OF UNFROZEN LAKES.—The influence of large unfrozen bodies of water, in softening the severity of sharp frosts in winter, is familiar to intelligent cultivators of fruit and tender plants. An interesting example is given by Dr. KIRTLAND of Cleveland, in a late number of Silliman's Journal. At his residence, half a mile from the south shore of Lake Erie, the temperature of the air has in no instance in ten years, fallen below zero; while at Columbus, Marietta, and Cincinnati, lying from one and a half to two and a half degrees further south, the thermometer frequently sinks to 5° and occasionally to 10° below zero.

COMPOST TO PREVENT POTATO-ROT.—T. A. Smith, of Syracuse, has published in the Rural New-Yorker, an account of a successful experiment in preventing potato rot. He purchased two bushels of refuse potatoes, of the long pink-eye sort, a variety very liable to rot, and in planting them, put about half a pint of the following compound into each hill:—One part of gypsum, three parts hen manure, four parts charcoal, and ten parts "salt ashes," (unleached ashes from the salt works, supposed to contain 5 to 10 per cent of salt.) Half the eyes had been destroyed by the rot—the soil was gravelly loam resting on dry sub-soil, and the crop suffered some from drouth. The result was 12 bushels of medium sized potatoes, *with every tuber sound.*

The Grazier.

Guenon's Mode of Examining Milch Cows.

"In the November No. you speak of Guenon's mode of examining cows, as something that has been published in the Cultivator—if so, I have failed in finding it, and wish it might be published again. Respectfully yours, JOHN BUTLER. *Lisle, Broome Co., N. Y., Jan., '53.*"

We believe that a notice only of this method of determining by external examination the value of cows, has ever been published in the Cultivator. To give even an outline of the minute directions of GUENON, would require more space than we could devote to the subject—besides which, it is believed by many that he has gone into a minuteness of detail beyond the practicability of clear and distinct actual examination by those who have not devoted years to the subject.

But in order to give a single glance at the leading principle of his mode, we furnish the accompanying figures in illustration. Guenon's chief rule consists in the breadth of the "escutcheon," or space immediately behind the milk bag and contiguous parts, contained within the boundary lines, formed by the meeting of hair growing in opposite directions. The hair on the escutcheon grows upwards and meets with the hair on the other parts. In the very best cows, or those which give the greatest quantity of milk, and also continue in milk a long time, or the year round, the escutcheon is very broad, and extends upwards to the root of the tail, as shown in Fig. 1. Such animals are very rare, and in ordinary instances, and under good feeding and keeping, will yield about six gallons of milk per day. In less perfect animals, the escutcheon will be narrower, and frequently will extend only part way to the tail, and so in different cows diminishing in breadth until it reaches the medium, which is found to exist in the greatest number by far, of all milch cows. In poor milkers, it is quite small, as in Fig. 2; it varies also considerably in shape, but the same general rule applies to all shapes, namely, that the *area* of this escutcheon is an accurate indication of the amount of milk any cow will give. Guenon figures and describes no less than *seventy-two* different forms and sizes of escutcheons, all exemplifying this general rule, with a few exceptions, which he states, but which we cannot here point out, and all indicating with much accuracy the *quantity* of milk given, its *quality* and *duration*. Those who wish to go into a minute examination of the subject, will do well to procure Guenon's book, which is doubtless to be had at the principal agricultural book stores.

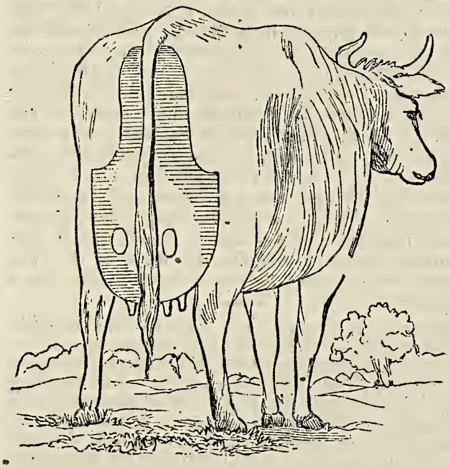


Fig. 1.

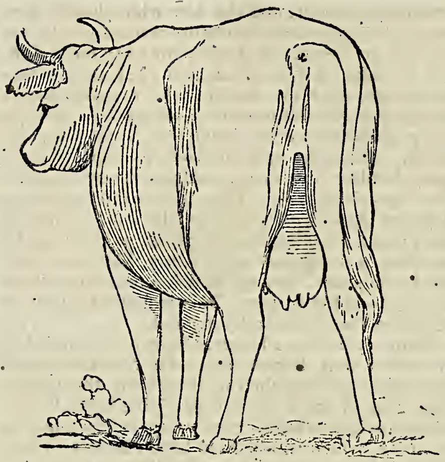


Fig. 2.

Several dairymen who have given some attention to this method, inform us that in general it is valuable and reliable. The late E. PHINNEY of Massachusetts, gave it a thorough examination and test, but he did not find it infallible, as there were some excellent milkers that had no escutcheons whatever. But in all cases where this mark was developed at all, it was found to be "a very sure indication," and proved a most valuable aid in the selection of cows and heifers for the dairy—the more valuable, because as well developed in the calf as in the fully grown cow.

◆

Profits of Feeding Cattle.

As your paper is designed to meet the wants of practical farmers, in order that this large and increasing class of our population may be profited, it is necessary that they furnish such information as may be in their possession, for the benefit of others. Let every cultivator of the soil bear in mind, that in a *joint stock concern* of this nature, every one must, or should, in this way, put in his share of the capital, so as to enable every share-holder, (or reader of an agricultural paper,) to receive a dividend weekly or monthly, as the case may be. And as all holders of claims against monied companies, promptly present their demands for payment, so let all holders of difficulties in agricultural affairs, present them for solution. In this way may an interest in the pages of an agricultural paper be kept up, and information be scattered broadcast over our beloved country.

In accordance with these views, allow me to make a statement in regard to feeding cattle. It has been a common practice in this section, either to feed our *cull* cows of the dairy in the fall of the year for beef, or sell to speculators at a *low figure;* and, in the absence of any direct and certain knowledge of the results, it has generally been supposed to be a losing process. An occasional drouth finds us over stocked with store cattle, and in a section where dairying forms an important branch of business, a large number of cows become yearly superannuated. The inquiry, then, what we shall do with the surplus, and whether we can profitably convert it into beef, becomes deeply interesting to every man who keeps even one cow.

August 1, 1852, I dried three cows selected from that part of the herd which is not up to the merchant's rule of *small profits, &c.* October 1, they were offered at $7.00 per head, but no purchaser was found at that low figure, although they were in good *keeping* condition.

Soon after this date I commenced feeding, and kept an accurate account, as follows·

Three cows,	$21 00
Eight loads pumpkins,	6 00
Thirty bushels ears cull corn,	10 00
Twenty-four bushels potatoes,	5 00
Hay and grass,	3 00
Total cost,	$45 00
Profit,	23 00
Dressed 1,700 lbs., sold at 4c	$68 00

They were of the native breed or stock, fed in stalls after cool weather, with the *run* of a small lot in the the middle of the day, to sun themselves and drink. The manure is supposed to pay the trouble of feeding, &c. This leaves a net profit as above, of $23.00, or taking the cost of the *raw material*, produces beef at 2 1-2 cents per pound.

It is generally conceded to be a great saving of feed to stable stock, and especially cows, in this cold climate, and some maintain, (myself among the number,) that they should not be let out of the yard in the cold season, to be pierced through with the cold winter winds, traveling to and from stacks to find their morning rations, as is the common practice, but after having eaten their morning rations peaceably in their stalls, be suffered to lie quietly in a warm yard, provided with a supply of water, until the time to feed again. But at this point of our inquiry an important objection meets us, which is, an *asserted material reduction* in the value of hay, after having been removed from the place where first packed, when fresh and pliable. Few dairymen and graziers here, can conveniently have a barn large enough to stable their cattle, and at the same time hold hay sufficient to feed through our long and cold winters—but find themselves under necessity of storing a considerable quantity of their hay in the meadows, to be fed to stock in the open lots, when driven from their stables, or else to be drawn to the barn from time to time, as the mows are emptied. Thus the cold winds blow through it, dry up its moisture, drive out its sweetness, rendering it hard, brittle, and unpalatable, reducing its value from 15 to 25 per cent. So say our old farmers. Have any of your numerous readers ever given the moving of hay in winter a fair trial, so as to be able to tell with any certainty, whether there is a loss, and if so, what per cent, and in what it consists. A correct understanding of this subject would be of great value to many of your readers, and well might they say the money expended for your paper was like "good seed sown in good ground, bringing forth some thirty, some sixty, and some an hundred fold." But such information must be based upon carefully conducted experiments. If any such experiments have been made, we hope they may soon see the light. VERMONTER.

☞ We shall be glad to receive from the above correspondent, his promised "sketch of cheese dairying," as conducted in his vicinity—also, his experience in any other branch of rural economy.—EDS.

◆

Lice on Calves.

MESSRS. EDITORS—Having a pair of spring calves, and feeding them with good, bright early cut hay, as much as they wanted to eat, together with a portion of oil meal, twice a day, and observing at the same time, that they were growing poor, rough, and homely, instead of thriving, and appearing sleek and handsome, I examined them closely, and found that they were covered with lice, almost innumerable. Being determined to destroy them, I took one quart of soft soap, and hot rain-water enough to work it into a good lather, and if a pair of calves ever got a thorough scrubbing, they were the ones. It did not seem to make them sick, nor to injure their appetites. About one week from that time, the lice were quite thinned out; and now, a little over two weeks since they got the scrubbing, I can scarcely find a louse on them. The calves are now on the gain, and I have no doubt but what they will do well. JOHN DIEHL. *Bristol, Ohio, Feb.* 7, 1853.

Policy of Shelter.

MESSRS. EDITORS—I noticed in your first number an article entitled, "What shall we do for fodder this winter," in which were adduced the theories of animal combustion, and some conclusions drawn from them. Knowing that thorough investigation is essential to true progress, and true progress is what we, as farmers, wish, I have ventured to advance a few ideas, as they occurred to me on its perusal—not in a spirit of opposition, but for the sake of information. Without discussing the truth of the theory, that artificial warmth may be a means of economizing fodder, I ask, is it the policy of our farmers to adopt it? No one, probably, will deny that it is the interest of every farmer to keep a healthy, well-constitutioned stock, that will be hardy and active in our bleak, borean winters. Now all animal systems are more or less alike. What is the case with man? Confinement to warm rooms, inactivity, &c., are some of the most fruitful means of physical degeneracy. The alarming extent of disease; especially consumption, among the females of our country, is proof sufficient of the evils of confinement to heated rooms and sedentary employments. The high bred women of England engage in the *manly* sports of our own country, and the extent of their physical powers, and the quantities of the necessaries and the luxuries of life that disappear before them after a morning's fox-hunt, would really frighten a fashionable lady of our country. The men of the revolution, born and bred amid all the privations and hardships of a barren frontier, made herculean men of far different mould from the effeminate city bred of to-day.

Among animals, take the example of the horse. The Vermont horses are becoming noted for their speed, bottom, and power of endurance; but doubtless a great portion of this real worth is attributabble to their early management. It is no uncommon thing to find those stallions, whose stock proves the best, in the threshing machine, harnessed to huge loads of wood, or the railroad cart, a greater part of the year. Thus developing the muscles and improving the constitution, while the younger colts are left to pick up the oats left by the sheep, and shift for themselves,—afterwards to make the fastest, most hardy and high-priced Morgans and Black Hawks.

Cattle are affected much in the same way, and if you wish a hardy muscular yoke of oxen, it is the common remark, "buy those that have plenty of air and exercise." Sheep are even more affected than either cattle or horses, by confinment. Shut up in warm sheds, lying upon their own manure, they soon become diseased and fail. An instance occurred under the writer's own observation, last winter, ('51–'52,) so unusual for its severity. A flock, about sixty half-blooded Merino and Leicester sheep, were fed in racks in a warm shed, with ample entrances at the side and end, but with no opportunity for the wind to reach them. The manure did not freeze, but they were dry, and apparently very comfortable. Everybody said those sheep would do nicely, but before spring they declined in flesh, and the *rot* began to attack them; they were only saved by being driven out to the open air, and there kept the remainder of the winter.

It is farthest from my intention to advocate cruelty to animals, or that stock must be exposed; but experience seems to indicate there are extremes in this as well as other things, and reason sustains experience. Is it not making hot-house plants of our animals, by heating our barns and confining our stock in close apartments? Many of our best farmers in this section of Vermont, are even neglecting to blanket their horses, finding them less liable to colds, more hardy and vigorous; though their hair may be less glossy, and their general appearance less prepossessing. Do not these facts seem to indicate that warmth, though incontestibly it does lessen fodder, is not always a proper substitute for it.

The strength and power of the engine must not be sacrificed for the sake of its beauty, or the economy of its fuel. Its comparative power, beauty and expense, must all be considered. As I said before, I say not this to condemn any previous opinion, but to find out its real value,—to learn the true interests of the farmer, in developing the greatest muscular power of his animals at the least expense. C. S. H. *Peacham, Vt.*

This question, when stripped of the appendages which do not belong to it, is one of great simplicity. Our correspondent has unintentionally encumbered it with needless difficulties. By another examination of the article he comments upon, he will perceive that we have by no means admitted the propriety or necessity of confined air or the absence of cleanliness, which he seems to think inseparable from shelter. Every good stable is furnished with ventilators above, and some of the best farmers furnish their cattle apartments with side registers, which are kept closed on the windward side, and opened oposite. Every one who fears the care of this attention, and of the requisite labor for keeping stables cleaned twice or thrice a day, and well supplied with litter, will of course prefer to expose his animals, even though the loss thus sustained by exposure may far exceed the cost of labor expended for shelter.

The saving of food by promoting animal warmth, has long since been proved by innumerable trials, to be an incontrovertible FACT, and not a mere "theory," as our correspondent seems to suppose. Many of our best sheep farmers, have found so great an improvement both in the condition of their animals and in the quality of the wool afforded, as well as saving of life to the animals, and of the amount of food consumed, as to repay fully in two to three years the total cost of comfortable and substantial shelters. Instead of producing disease, we know of some who thus lose fewer animals in winter than in summer; but they were not, however, allowed to live and repose on their own manure, as in the case cited by C. S. H., but strict cleanliness was observed.

It is true, there is a physiological similarity between animals and human beings, and if farmers would but remember this, they would be less likely to permit the discomfort of filth to their horses and cattle, which often exists to a degree that would be insupportable to human beings. But to to compare animals which are kept in clean, comfortable and well ventilated stables, mostly in a standing posture, with several hours run in an open yard, daily, in mild weather, to women, who keep themselves mostly in a sitting posture, in unventilated rooms, artificially heated, with not five minutes of open air, is a very great mistake. Does our correspondent think that a farmer and his family would enjoy better health, and be freer from colds, croups, and consumptions, if not even allowed the shelter of the barn, without fire heat, or even the protection of a high board fence, to sleep under? We have no doubt such treatment would make the race hardier; but it would be through the certain destruction of all but the very hardiest of persons, whose iron constitutions would of course be transmitted to their posterity. But such treatment would not help those who are tender, but only enfeeble and wear them out by hardships—a result we have repeatedly witnessed on unduly exposed animals. Strength of constitution and hardiness of frame are promoted in the highest degree when there is no suffering for the lack of comfort, when there is not a constant draft upon flesh and animal vigor, by exposure to snow, rain and stormy winds.

Abortion in Cows.

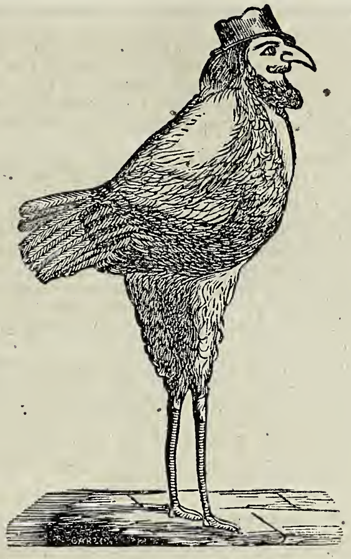
A correspondent, (S. R. S., of Blooming Grove, Orange co.,) wishes to know the cause of abortion in cows. He assures us that his cows are in good condition, are kept in stables above ground, and are kept there only in muddy, cold, or stormy weather. Finding the disease contagious, he immediately separates affected ones.

Without being able to assign the cause in this particular instance, we can only state what are usually regarded as the most prominent causes, viz: confined or impure air in stables, stall feeding without sufficient and regular exercise, impure water, bad hay, or stale grain, &c., which are supposed to cause flatulency, and increase the danger. Offensive odors, especially of putrid flesh or putrid blood, are supposed to produce a nervous influence, and strongly to contribute to this result. The ergot of rye is known to have a powerful tendency in the same direction, and it is thought that the ergot which grows upon other plants, as some species of grass, on wheat, and Indian corn, and which are found more abundantly in certain localities, and in certain seasons, may also tend to produce abortion. All the cows of a herd being alike affected by all these causes, when the first animal loses her calf, the peculiar odor which she imparts, and which the others by their keen sense quickly perceive, tends powerfully to produce the same disaster throughout the herd.

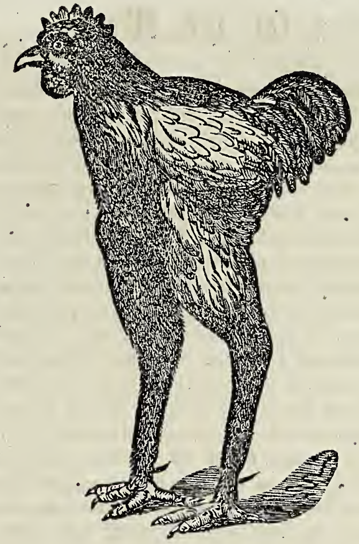
The remedy consists in avoiding all the exciting causes, and in moderate and regular feeding, wholesome food, pure water, pure air, moderate exercise, clean bedding, currying, and general attention to comfort.

◆

Apples for Domestic Animals.—A correspondent of the Ohio Farmer, who has experimented to a considerable extent during the past abundant season, thinks there is nothing better for milch cows, when fed to them in proper quantities. The quantity should be small at first, and increased to a peck twice a day for each cow. He finds them worth more to beef cattle than pumpkins, and to calves than shorts. Cooked and mixed with meal or shorts, they are excellent during the earlier stages of fattening hogs. We have found them to increase the milk of cows one half more when fed to them in winter, in rather less quantities than above stated; and to be very fine as green food for horses, when fed on hay. Farmers need not fear to plant out plenty of apple trees of productive sorts, for if the market should ever become glutted, they could never come amiss as food for cattle, hogs, sheep, horses, &c.



BROADWAY SHANGHAI.



ORIGINAL SHANGHAI.

Resemblance between Man and Animals.

Some years ago, a book was published from the pen of J. W. Redfield, M. D., advocating the theory that a resemblance, more or less marked, between men and animals existed, to the support of which a variety of comico-serious illustrations are introduced. It was shown that animals possessed of superior instinct, amounting almost to intelligence, bore the most perfect similitude to the human phiz—there being only slight differences of expression and the position of features between the horse, sheep, or dog, and the countenance of men.

The Knickerbocker for February, gives the above illustration of this similarity of physiognomy, which goes to show that the principle is world wide in its application; for, despite the difference of climate and education, the Shanghai fowl and the Broadway "cock of the walk," are strikingly alike. It is a cheering thought to the breeders of the larger varieties of poultry, that the breeds they are endeavoring to improve are so nearly allied to the genus *homo;* while it will in no way mortify the pride of the Broadway dandy, to be apprised that his form and address are of foreign importation.

◆

Simple Stump Machine.—A simple contrivance for removing stumps, similar to one we have known for many years, is described in a late number of the Michigan Farmer, and which, the editor was informed, had taken out a hundred and forty stumps in half a day. We have no doubt this could be done, if the stumps were of moderate size, and the roots partly decayed. The contrivance is simply this:—A stiff, massive lever, about twenty feet long, is placed with its thick or stronger end at the side of the stump; a chain several feet long, with links made of inch, or inch and a quarter iron, and with a long ring at one end, is then attached to the end of the pole by means of the ring, and the rest of the chain passed round the stump, and hooked into a root or into the body. A yoke of oxen now attached to the other or smaller end of the lever, exerts an enormous power, and unless the stump is quite large, will quickly twist it out.

Preserving Shingles.—Every one who builds houses has observed the gradually increasing scarcity of shingles, and tin, zinc, and tiling are beginning to rise into view. If, however, some application could be made to shingles to render them very durable, they would be extensively used for a long time to come. Gas tar is cheap and good, but its blackness causes warping by absorbing all the heating rays, and makes very hot and uncomfortable attics and garrets. We have lately seen the following application strongly recommended as an excellent perservative for many years. A pound of potash and a pound of salt are dissolved in four gallons of lime wash, and while the whole is boiling, a handful of shingles, held by the tips, is dipped in, and placed on the ends, on a board so that the drainage, shall run back into the kettle. When well dried, they are laid on the roof. Yellow ochre, Venetian Red, or umber may be mixed to give a suitable color, but the lighter the color, the more durable the shingles, and the cooler the attic.

Paint for Brick Houses.—A correspondent of the Ohio Farmer has used a cheap and very durable paint for the exterior of brick dwellings, which has already stood several years, and is now quite as fresh as when first applied. It consists simply of lime wash, with sulphate of zinc as a fixing ingredient Any requisite shade is given by adding the colors used by house painters. A clear and rich cream color may be obtained by applying yellow ochre to the common new brick, a livelier and warmer shade will be added by a little Venetian Red. Burnt sienna may likewise be used. This paint is far cheaper than oil paint, costs but little more than common whitewash, and nothing will remove it but the severest friction.

Notes for the Month.

To Subscribers.—We wish to call your attention to the promise in the Jan. No., that the present volume should, in quantity and quality of matter, be equal to any previous one, and ask you if our word has not been fulfilled to the letter and spirit? Believing that the universal answer will be in the affirmative, we wish to make one request, and that is, if you are pleased with The Cultivator—if you are satisfied that it is an efficient aid to your success as farmers, that you will endeavor to increase its circulation. Show your approval and your faith by your works, and we shall have it in our power to continue to furnish you with the *greatest* amount of valuable agricultural reading at the *least* price. We can supply back numbers to any extent, and future ones of an equally valuable character. If you know of a single farmer in your town who does not take an agricultural paper, solicit him to pay fifty cents for The Cultivator, and if he declines make him a present of it, and thus help on the work of agricultural reformation.

If you choose a paper of more varied character, containing the same agricultural matter as the Cultivator, and much more, with pleasant and instructive reading for the Fireside, a little humor for a leisure hour, a concise record of the times, and a full report of the produce market, The Country Gentleman, weekly at Two Dollars a Year, is just the thing.

We will send specimens of the Country Gentleman to any who wish to examine it. Its typography is unrivalled by any journal in the country, and its contents will bear perusal.

To Correspondents.—Notwithstanding our efforts to condense and crowd all we can, into the pages of the Cultivator, many valuable papers from our correspondents have to be inserted in the Country Gentleman only; and it is proper to say, that in selecting for the Cultivator, we have to be guided in a great degree by the arrangements of our printers in the use of their type; and that no correspondent must therefore conclude that his communication is omitted from the Cultivator, because we consider it not equal to those published. We do not publish anything in our weekly sheet, which we should not gladly publish in the monthly, did its limits admit of it.

☞ The senior editor of this paper, having, after ten years of active service, declined a re-election as treasurer or a member of the Executive Committee of the State Ag. Society, deems it not improper on this occasion, to tender his thanks to the members of the Executive Committee, for their kind appreciation of his services, as manifested in the following resolutions, which were unanimously adopted, at a meeting of the Executive Committee, in January of last year, but which have not heretofore appeared in his pages:

Whereas it is the opinion of this board, that the New-York State Agricultural Society is greatly indebted to Mr. Luther Tucker for his able, efficient and long continued labors, as a member of the Executive Committee, having acted as its secretary and business officer for the first three years after its reorganization, in 1841, and aided most efficiently in perfecting its organization, and in carrying into successful operation its first Fairs at Syracuse, Albany and Rochester, furnishing an office for the Executive Committee, the necessary stationery, &c., for the three years; preparing for the press, and superintending the printing and distribution of its Transactions, and performing all the duties devolving upon its local Secretary, for all of which, as well as the expense incurred by him in the performance of these services, he declined to receive any reward; and,

Whereas Mr. Tucker has, with the exception of the year 1844, when he declined to act as Secretary, on the ground that the Society was then quite able to pay for such services, and the year 1847, when he again declined the secretaryship, to which he had been elected, served the Society, as a member of this Board, or as its Secretary or Treasurer, from its reorganization to the present time, without remuneration, except for the year 1845, when he was allowed $300, an amount less by $250 than was paid for the same services the previous year: therefore,

Resolved, as the unanimous opinion of this Board, that to no man more than to Mr. Tucker is the Society indebted for its present highly prosperous condition, and that the thanks of the Executive Committee, together with a service of plate to the value of $500, be presented to him, as a testimonial of their high appreciation of his services and character.

Col. Sherwood's Short-Horns.—The simple announcement of the fact that Col. Sherwood proposes to sell his fine herd of Short-horns, will be sufficient to attract the attention of breeders of fine cattle throughout the country, to his advertisement given in another part of this paper. Col. S. has devoted his attention to the breeding of Short-horns for many years, and has spared no expense necessary to enable him to avail himself of the best stock to be procured either at home or abroad. The success which has attended his efforts, has been witnessed by the thousands who have attended the exhibitions of our State Ag. Society, and has been abundantly proved by the high figures at which animals from his herd have been held for years past. He now offers about thirty head, to be sold at auction at his farm in Auburn, in June next—a sale which will equal in attraction to breeders any provious public sale in the state.

Bees—Hydropathic Treatment.—Dr. Robinson, of Farmington, N. Y., informs us that he succeeded perfectly with a hive of bees that persisted in collecting in thick masses outside the hive and doing nothing. He bored a hole through the top, which happened, as he wished, to strike the space between the combs. He then fitted a small hive above the old one, and standing at a respectful distance with a syringe in his hands, continued to shoot the bees with delicate broadsides of cold water. They soon retreated to the interior, and ascending through the holes, occupied the new hive above. They immediately went to work to fill it, and in about five weeks it was found to contain twenty pounds of honey. Another person had accomplished the same purpose by covering the top with fresh branches of trees, and then imitating a shower of rain by drenching these branches with a watering pot.

Good Sheep and Good Prices for them.—Messrs. Hungerford & Brodie, of Jefferson county, who received the first prize for the best fat long-wooled sheep at the late exhibition in this city, sold four of them to Mr. David Moore, of this city, for $130. They were four years old, and the heaviest weighed 268 lbs.

Hops.—We give in this number, the third paper of our Otsego correspondent, on the culture of the Hop. This, with another on the expense, yield and profit of the crop, &c., will conclude the series. These papers have been read with a good deal of interest, the subject being one upon which but little has been written in this country; and they are the more valuable, being the result of the writer's own observation and experience. In a private note, he says—"I write nothing but what my own experience and judgment confirm. The Hop crop has become a very important one in this country, and it is one on which but little has been written. I hope others will give their experience through your papers, and if it should differ widely from mine, I shall be glad to adopt whatever may be seen to be an improvement. Should any one wish further information, I shall be ready to answer any questions which the reading of my communications may suggest."

The Poultry Era.—Some persons, we think, would be puzzled to decide whether the present point in the nineteenth century, will be most conspicuously marked in history by the self-manufacture of a French Emperor, or by the great poultry shows so often held in various parts of the world, but more particularly in the region extending from London to Chicago. The Bostonians have repeatedly made quite imposing display; the western states are not far behind; and now, we have the intelligence of a great exhibition of poultry in the city of London, patronized by the most distinguished noblemen of the kingdom, and visited by many of the foreign ambassadors, which leaves all the achievments of Yankeedom far in the lurch. We may talk about the "*mania*," but the British have some reason for stirring up a feeling of poultry-admiration; for they are importing annually from France upwards of a hundred millions of eggs, the duty on which amounted, in one year, to a little more than £25,000, or over a hundred thousand dollars.

This great metropolitan show included fowls, turkeys, geese, ducks, pigeons, and rabbits. There were over 600 pens of fowls (proper) alone, each pen containing from two to four. The Cochin Chinese took the lead far ahead of all others, and filled 249 pens. The Spanish, Dorkings, Hamburghs, Polands, Game, and Bantams, were in very respectable numbers. The pigeons occupied 249 pens, rabbits 48.

On the first day, the fee was five shillings, and several hundreds visited the collection. On subsequent days the price for admission was only one shilling; on the first of which 5,000 entered; on the next the number was much greater, and on the third and last it was computed that the number persons passing through the collection was nearly 12,000. The receips could have been scarcely less than at one of our great State Fairs.

A large portion of the collection was sold at auction, at the close, and some pens, we observe, brought about £50 or $250. The entire auction sales amounted to some $5,000. A large number of agriculturists present thought that the breeding of poultry was at present even more profitable than raising the finer sorts of cattle.

Ag. Society for Albany County.—It will be seen by a notice in this paper, that a meeting is to be held in this city on the 14th of April, for the purpose of organizing an Agricultural Society for this county. This movement should find zealous advocates and firm supporters in the farmers of the county, and among the citizens generally. The disgrace of being without any organization, for the improvement of the rural arts and the development of the agricultural resources, has rested on this central and wealthy county long enough. From this cause the impression has gone abroad, that our soil is inferior, our farmers destitute of private enterprise, and lacking in public spirit. It remains for the farmers to remove this opprobrium, to take a prominent stand in the ranks of our agricultural societies, and demonstrate their claim to energy and ability, and prove the virtue and capability of the soil they cultivate.

A society was organized in 1841; but it failed to perform its duties, and consequently lost the bounty appropriated by the State, amounting to over $2000, which almost all the other counties secured. But it is not too late to retrieve our character. We have the example of other societies to stimulate and guide us, we have experienced and skillful farmers among us who can at once give character to our shows, we have men of wealth who can and will contribute to a fund necessary to a prosperous beginning, and we have abundance of farmers who need the benefits of an agricultural society, and will profit by them. We trust this design will not fail for want of hearty support, and to be successful, something more than a board of officers and a list of premiums is necessary. Farmers must be aroused, members solicited in all parts of the county, and the society be composed of the masses and made to promote their interests.

Improved Water Wheel.—We take pleasure in calling the attention of our readers to the figure and description of an improved French Turbine Water Wheel, invented by Mr. Jagger, and manufactured by Jagger, Treadwell and Perry of this city. The inventor has, by a simple, common-sense application of a mechanical principle, rendered this important piece of mechanism more perfect and better adapted to its useful purposes, than anything of the kind before known. The improvement has been highly spoken of by the mechanical journals of the country and by all who have used them.

Stowell's Evergreen Corn.—In a communication from ONATHAN TALCOTT, of Rome, N. Y., who is a careful and skilful farmer, he informs us that this corn has failed to fulfill his expectations. He procured the seed from Longett & Griffing of New-York, at $1.50 per quart, and is ready to distribute what he has raised among his neighbors without price, that its qualities may be further tested. He adds that Prof. Mapes' directions for keeping were strictly observed. This result is similar to that of many others.

Iron Scythe Snaths.—Inventors and manufacturers of machines could have learned much, if they had only given attention to the extraordinary examples of contrivance so numerously displayed in the works of creation. We may cite achromatic lenses as one example of this sort, which even Newton pronounced impracticable, while at the very moment he was writing that assertion, he was looking through two most perfectly constructed achromatic lenses, just like millions of others which had been in existence for thousands of years. The ancients were puzzled for a substance to write upon —wasps had been making paper since the creation—a crude, brown fabric, to be sure. Flies and tree frogs had for the same period illustrated practically the pressure of the atmosphere, and the principle of the suction pump, with beautifully constructed miniature machines; and the structure of the arch, which the more ancient nations, notwithstanding their superlative skill in masonry and architecture, knew nothing about, was well understood and constantly practiced all that time by a little mining ant. The most perfect form of a rod, shank, or beam, to combine strength and lightness, is illustrated by the tube of birds' quills, and by the straw of grains and grasses—the hollow rod or tube. This principle has been already applied in a number of instances; but not till now, the middle of the nineteenth century, has the hint been taken in the construction of scythe snaths,—implements in which lightness and strength are pre-eminently required. We observe by the patent office records, that these have been successfully manufactured by A., C. & C. N. CLOW, of Port Byron, N. Y., and learn that they promise great advantages on the score of durability, strength, lightness, and facility of being bent into any desirable form.

Brush Drains, are the cheapest underdrains we have ever constructed—and were made by simply filling the ditch nearly full with branches and brush, the buts pointing downwards or with the descent, the upper portions or tops being covered with inverted turf, and after treading down to one-half their original bulk, covered or filled in with earth. These have stood many years, and answered a good purpose, the air being excluded and decay prevented. We observe that a correspondent of Moore's New-Yorker states, that in Europe, these have been known to continue a hundred years, the ends or exposed parts, being finished with stones.

Machines at State Fairs.—J. L. POPE, of Manlius, N. Y., has pointed out some of the evils resulting from a frequent practice with machine-makers, in exhibiting their most highly wrought and perfectly made machines at the State Fairs, and supplying the orders subsequently received on the merit of these beautiful exhibitions, with those of the roughest and most ordinary character. We can not find room for his communication entire, but only the following portions:—"A farmer attending a fair, sees an improved machine. It is made of the very best material, and with the most exquisite workmanship. It does the work assigned it, with precision and despatch. He orders one—announces his intentions to his neighbors—but when it arrives—how changed! He can scarcely recognize in the wretched machine before him, the least similarity to the beautiful one he had seen. Its performance proves a failure; and the neighbors are quite satisfied they are right in resisting all new things. A feeling of distrust towards all improvements is created." He does not wish to apply these remarks to the many honest machinists, whose work always satisfies every purchaser, and regrets that these should suffer, on account of the dishonesty of others.

The remedy he proposes—exposure in agricultural papers—would hardly be practicable. The community consists of a mixture of honest and reliable men, and those of an opposite character, and the public paper that should undertake to give a list of the latter class, would soon find the task attended with serious inconvenience. We know of no better rule than the one we once heard from a wise and shrewd man, "never to deal with a dishonest person, no matter how good a bargain (apparently) you can make." It may cost some time and inquiry to ascertain such machine makers as are worthy of the fullest confidence; but there are such men, and we know of no "royal road" to find them, other than through the labor of inquiry.

North River Agricultural Warehouse,

53 Cortland-street, New-York.

GEORGE H. BARR & CO., invite the attention of Farmers, Planters and others, to their large and varied assortment of Agricultural Implements, Manures, Seeds, &c. &c., all of which will be furnished at the lowest prices.—Their assortment includes

PLOWS—All the improved kinds by the most approved makers.

HORSE POWERS—Of all kinds and sizes, with and without Threshers, &c.

CORN SHELLERS—All the improved kinds, and some of recent introduction.

STRAW CUTTERS—Of all sizes and kinds, for hand and horse-power.

CORN AND COB CRUSHERS—Of all kinds and sizes.

FANNING MILLS, Cultivators, Harrows, Agricultural Barometers, Churns of all the approved kinds, Rakes, Hoes, Forks, and a general assortment of Horticultural and Garden Tools. April 1—1t.

Plows.

AN Extensive assortment of the best Plows in use, embracing every variety of the celebrated Eagle Plows, manufactured expressly for us, together with the "Oneida;" the "Ne Plus Ultra," Peter Auld's Plow, Smith's Patent Sod and Subsoil Plow, &c., &c., Plow wheels and coulters. For sale at low prices at DANA BROTHERS,
April 1, 1853.—m1t 91 Genesee-st., Utica.

Mammoth Nutmeg Potato.

A FEW SACKS of these superior Potatoes may be had for seed of the subscribers. These Potatoes have never been diseased, and are as hard and firm when one year old, as when dug. They ripen in June, being among the earliest known variety. Price $2 per bushel.

North River Agricultural Warehouse,
53 Cortland-street, N. Y.,
April 1—1t GEO. H BARR & CO.

Keeping Eggs Fresh.

TO any person that will send me One Dollar, (post-paid,) and their written promise not to reveal it to others, I will send a Recipe, with full directions, by which I have kept eggs perfectly fresh for a year. The cost of material is but a trifle. No recipe will be given without the promise not to reveal it, accompanies the money. F. H. WILLIAMS,
April 1—tf Box 814, Syracuse, N. Y

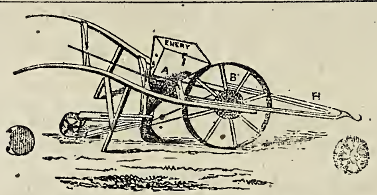
Prouty & Mear's Plow!

A LARGE assortment of these celebrated Plows can be found at the North River Agricultural Warehouse and Seed store, 53 Courtland-street, New-York.
April 1—1t GEO. H. BARR & CO.

Seeds.

THE undersigned being aware of the strong prejudice existing among Market Gardeners and others, in relation to seeds as usually sold by Agricultural Warehouses, have engaged the services of Mr. James Hogg, so long known to the public as a competent Seedsman, and have placed this department of their business under his control. They have also made arrangements with Prof. Mapes, and others engaged in seed raising, to furnish them with an assortment of the choicest seeds. The Foreign and California arrangements will ensure, in addition to garden seeds, a fine assortment of Bulbs, Flower Seeds, &c., &c.

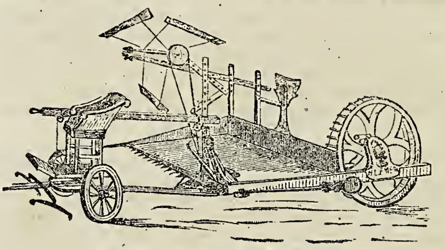
GEO. H. BARR & CO.,
North River Agricultural Warehouse,
April 1—1t 53 Cortland-street, N. Y.



Emery s Seed and Corn Planter.

THIS Machine has now been in use for six years, and the demand for them is constantly increasing—they have been very generally introduced, and are acknowledged the best machine now in use for the purposes designed. It has received many premiums, in competition with other good machines. It plants all kinds of seeds with equal accuracy being well adapted to the smallest seeds in drills, and for corn, peas, beans, &c., it has no superior. It can be used to plant in hills or drills, and used by hand or horse power. It is driven by a geer motion without bands, which insures a constant and uniform action. Price $14.

For sale at the Albany Agricultural Works and Warehouse of EMERY & CO., 369, 371 and 373 Broadway, Albany. April 1, 1853.



H. L. Emery's Reaper.

THE particular attention of Farmers who are contemplating purchasing Mowing and Reaping Machines, is called to the new invention of H. L. Emery.

Brief descriptions with cuts, illustrating the same, were mailed with the February Number of Cultivator as an Extra. As these descriptions were too brief to show fully the several parts and their operation, and as many of the subscribers may not have received them, this notice is to say that full descriptions, terms of sale, &c., will be forwarded by mail to all applicants.

They will be ready for delivery on and after the first of May. Price of Mower, with one set of extra knives, $110. Price for the attachments for reaping and delivering grain, $10 extra, and can be had with the mower, or at any time subsequent to it. For further information, address
April 1, 1853. H. L. EMERY, Albany.

Black Hawk Horse Raven.

THIS much admired horse, will stand at the stable of the subscriber, the coming season. Terms $10 the season. Good pasture provided at a reasonable price.

ROBBINS BATTELL.
Norfolk, Conn., April 1, 1853.—2t

Fruit and Ornamental Trees.

THE subscribers offer for sale at their Nursery in Waterloo, Seneca county N. Y., 2,000 Vergalieu Pear Trees, of two years growth, and from 4 to 6 feet high, at $35 per 100; $300 per 1000; a large quantity of Red Cedar at $5 per 100, $40 per 1000 American Arbor Vitæ at $3 per 100, $25 per 1000; and Osage Orange at $1 per 100, $8 per 1000.

Also a general assortment of Fruit and Ornamental Trees, Shrubs, Roses, &c., &c. Particular attention is given to the cultivation of hardy Evergreens, and we have a fine supply of Balsam Fir, Norway Spruce, White Spruce, Red Cedar, &c. Orders by mail will receive prompt attention, and trees packed in the best manner for transportation by canal or railways. For packing, a trifling charge will be made, to cover only cost of material.

Catalogues furnished. DELL & COLINS.
Waterloo, N. Y., March, 1853—11—3t—m1t.

Seed Potatoes—500 Bushels to the Acre.

A PREMIUM was awarded at the Winter Exhibition of the New York State Agricultural Society (see Report) to Peter Crispell, Jr., of Ulster county, for the largest yield of Potatoes, viz:—554 bushels from 1 17-100 acre; the kind cultivated was the Yam Potato. Of this particular variety a highly intelligent practical horticulturist of New Jersey writes us—"I have grown this excellent Potato for some years past, and have found it of most excellent eating quality, and superior to all kinds I have ever tried, in resisting the rot. Being of a hardier constitution and more solid texture, it retains its eating qualities later in the Spring than the other varieties. The character given to it by Mr. Smith, who introduced it into New York, and highly commended it to the attention of agriculturists, I am prepared to endorse. During the three years I have cultivated it, it has yielded me 20 bushels to 1—thus uniformly proving itself more prolific than any other variety in cultivation. (See 'Cultivator,' vol. 7. page 155, for 1850.")

The subscribers offer for sale 500 bush. of the Yam Potato, by the bushel, barrel or larger quantity.

Also the following standard varieties of Early Potatoes, viz: Early Sovereign, Early Ash, Leaf Kidney and Early June, well saved and healthy Seed.

Also every variety of Vegetable, Flower and Field Seeds, of the finest qualities, at wholesale or retail. Catalogues furnished on application. J. M. THORBURN & Co.,
Seedsmen, Florists, &c.,
March 17—11—3t—m1t. 15 John Street, N. Y.

Thorough Bred Devons For Sale.

THE undersigned offer for sale the following:—

BULLS,—1st. "*Uncas*,"—calved March 19th, 1851. 1st prize at the show of the American Institute, 1852. Sire "Meguniticook;" grand-sire, "Prince Albert," (102); dam, "Nonpareille, by Lord Lynedock."

2d. "*Red Jacket*"—calved May 5th, 1852. 1st prize as calf at show of American Institute, 1852. Sire, "Meguniticook;" grand-sire, "Prince Albert." (102); dam, "Meadow Lilly," by "Baronet," (6); g. d. "Helena."

3d. "*Osceola*"—calved September 11th, 1852. Sire, "May boy," (71); grand-sire, "Duke of York," (37): dam, "Moss-rose," by "Duke of York," (37); g. d. "Nonpareille," by "Lord Lynedock."

4th. "*Dacotah*"—calved October 29th, 1852. Sire, "May-boy," (71); grand sire, "Duke of York," (37); dam, "Red-bud," by "Meguniticook;" g. d. "Nonpareille," by Lord Lynedock.

HEIFERS.—1st. "*Rose*"—calved October, 1849; bred by Mr. R. C. Gapper, Canada West. Sire, "Major;" grand-sire, "Billy;" dam, "Cherry," by "Billy;" grand-dam, "Beauty."

2d. "*Gazelle*"—calved October, 1850; bred by Mr. R. C. Gapper, C. W. Sire, "Rob Roy;" grand-sire, "Santa-Anna;" dam, "Cherry," by "Billy;" g. d. "Beauty."

These animals are of the best blood to be found in England. "Meguniticook," "May-boy," and "Nonpareille," having been imported from the herd of George Turner, Esq., and "Helena," from that of James Quartly, Esq., by ourselves; while "Billy" and "Beauty," were imported by Mr. Gapper, from that of James Davy.

With the rest of our herd, they may be seen at all times, on our farm, 3 miles from the Rhinebeck station of Hudson River Railroad.

The figures in brackets refer to the English Herd Book.—Animals delivered, free of expense, in Albany or New-York.
W. P. & C. S. WAINWRIGHT.
Rhinebeck, Dutchess co. N. Y.—March 1—m3t

Choice Vegetable Seeds.

A LARGE assortment, raised expressly for our sales.
LONGETT & GRIFFING, No. 25 Cliff St.,
March 1—2t. near Fulton, New-York.

Fertilizers.

GENUINE *Peruvian Guano*, fresh from ship; just imported.

Super-Phosphate of Lime, a superior article, the best in this market.

Bone Dust, ground fine, and Sawings.

Poudrette, of the best manufacture.

Plaster of Paris, ground and in barrels.

R. L. ALLEN. New-York Agricultural Warehouse and Seed Store, 189 and 191 Water st., N. Y. March 1—tf.

Choice Garden Seeds and Flowers.

A CHOICE selection of the best early, middle, and late Garden Seeds, fresh imported from Europe, and grown in this country, expressly for me.

Flower Seeds—A fine assortment of all the best sorts.

R. L. ALLEN, New-York Agricultural Warehouse and Seed Store. 189 and 191 Water St., N. Y. March 1—tf.

Horticultural Implements.

PRUNING Shears, and all other implements used in the Conservatory, Flower and Fruit Garden.

Hand Plows and Cultivators, Rollers, Trowels, Scufflers, Hoes, Shovels, Spades, Rakes, Seed Sowers, and all other implements, of the newest and most improved kinds, for the Kitchen Garden. R. L. ALLEN,
New-York Agricultural Warehouse and Seed
March 1—tf. Store, 189 and 191 Water St., N. Y.

NURSERY OF J. J. THOMAS,

Macedon, Wayne County, N. Y.

ALL Fruit Trees sold at this Nursery are propagated from trees proved in bearing, and a selection of the best sorts made out of nearly *one thousand* proved varieties.

A large collection of APPLE TREES includes Gravenstein, Early Joe, Northern Spy, Baldwin, Rhode Island Greening, Strawberry, Porter, Fall Pippin, Swaar, and many others.

PEARS—*dwarfs*—Louise Bonne of Jersey, Winkfield, Angouleme, Tyson, &c. *Standards*—Virgalieu, Dix, Bartlett, Seckel, and others.

PEACHES—Tillotson, Early York, Crawford, Nivette and many other sorts.

CHERRIES—Early Purple Guigne, Tartarian. Holland Bigarreau, Elton, Knight's Early Black, Downer, Napoleon, Governor Wood, &c.

GRAPES—Isabella, Catawba, York Maderia, Clinton, Bland. Black Cluster, Malvoisie, Royal Muscadine, Black Hamburgh, &c.

RASPBERRIES—Franconia, Fastolff, Cretan, Red Antwerp, &c.

STRAWBERRIES—Burr's New Pine, Hovey's Boston Pine, Large Scarlet, Hudson, &c.

GOOSEBERRIES—Houghton's and many English sorts.

ORNAMENTAL TREES——Horsechestnuts, European Larch. Mountain Ash, Honey Locust, Weeping Ash, Ailanthus. Magnolia, &c.

EVERGREENS—Balsam, White Spruce, Deodar, Norway Fir, Silver Fir, &c

ORNAMENTAL SHRUBS—Deutzia, Fringe tree (white and purple.) Japan Quince, Dwarf Almond. Dwarf Horsechestnuts, Siberian Lilac, Crimson Currant, Tree Pæonia, Large flowering Philadelphus, Mezereon, Sweet-Scented Shrub, &c. Spireas—racemosa, double flowered prunifolia, and a dozen other fine sorts. Honeysuckles—Tartarian, Scarlet Trumpet, Yellow Trumpet, Woodbine, Chinese Sweet-Scented, &c. Bignonia—great flowering, common crimson, &c.

CLIMBING ROSES—Queen of Prairies, Baltimore Belle, Crimson Boursalt, Queen of the Belgians, Pallida, Caradori Allan, Mount Joy, &c.

Hybrid Perpetual Roses.—La Reine, Madame Laffay, Baron Prevost, Rivers, and many other brilliant sorts.

Summer Roses.—Red Moss, Princess, Adelaide, and several other moss roses; Triumphe d' Abbeville, Fulgens, George IV, Latourterelle, and many others.

HERBACEOUS PERENNIAL PLANTS—a fine and very select collection, including many of the most splendid Pæonies, as Pottsii, Reevesii, Humei, Whitleii, Fragrans, &c.; Phloxes, including Van Houtii, Picta, Speciosa, Breck's Fleur de Marie, decussata, &c.; Spiræas, comprising lobata, aruncus, japonica, &c.; Iris, many fine sorts; Lythrums, Dictamnus, Delphiniums, Aconites, Baptisias, Campanulas, Funkias, Yuccas, &c., &c.

Catalogues gratis. Orders with remittances promptly filled. Packing done in the most secure manner for any distance by canal or railway. March 10—103t—m1t.

Devon Cows,

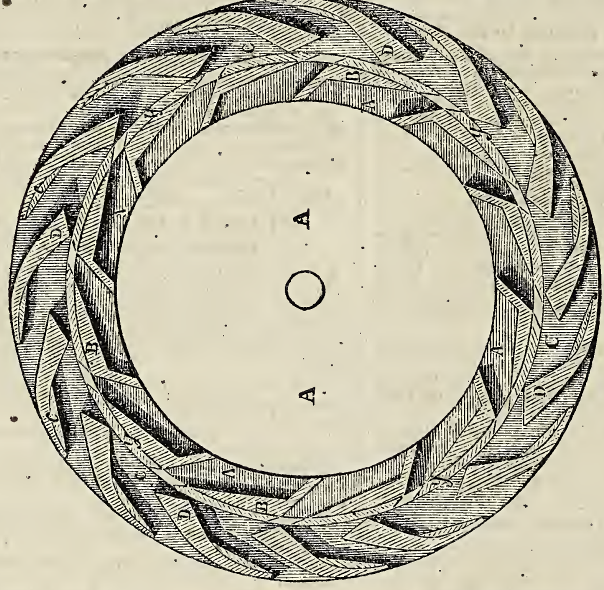
HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Jagger's Patent Turbine Water Wheel.

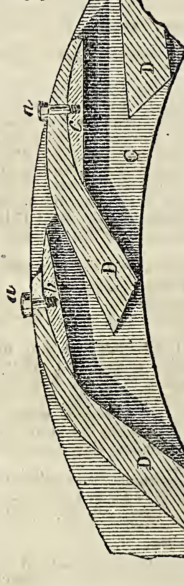
From the Scientific American of December 18, 1852.

THE annexed engravings are views of an improvement in the French Turbine Water Wheel, invented by **Ira Jagger**, of the city of Albany, N. Y., and for which a patent was granted on the 19th of last October, (1852.) Figure 1 is an enlarged view of a part of the periphery of the wheel, with some buckets; figure 2 is a profile section through the centre; figure 3 is a perspective view of the wheel as set in its proper position, and figure 4 is a plan or horizontal section taken through *x y*. A. being the fixed part, or shute chamber, with the shutes B B, and C, the wheel with its adjustable buckets, the same letters refer to like parts. The improvement consists in a sliding gauge or lip secured to the extremity of each bucket, as shown at *a b c*, in the figures, for the extension of the bucket, and fitted to the concave surface of the interior of it, by means of which the orifice of discharge, and its direction is regulated according to the head under which the wheel works, and the amount of work to be done, and thus obtain the maximum effect with every varying head of water, also adapting the wheel to the work to be done, which in many cases varies a great deal. The lip is a rectangular plate of iron reaching from the top to the bottom of the bucket; its back surface next the bucket is curved so as to fit the curved surface of the bucket, its front surface being flat, and a chord to the curve of the back surface. This lip is secured in its place by a screw bolt, *a*. sliding through a slot in the bucket, and tapped into a lip, and is regulated by sliding the said lip to or from the bucket directly in front of it, so as to diminish or increase the space between it and that bucket as shown in figures 1 and 3, where the lip, *b*, is shown as nearly closing the exit passage, and the lip *c*, as leaving the space between the buckets entirely open. A gate is placed between the shute chamber and the wheel, by which to regulate the supply of water to the wheel, so that there may be a due proportion between the quantity of water pressing into the wheel and that flowing out, as shown in figures 2 and 4, at *y*. It is pierced with slots equal in size and corresponding in form to the external openings of the shutes, and has the edges of the slots bevelled so as to deliver the water with as little interruption as possible, in whatever situation they may be in reference to the openings in the shutes. The gate is moved or shifted round horizontally, so as to close to a greater or less degree, the openings of the shutes, by any mechanical device.

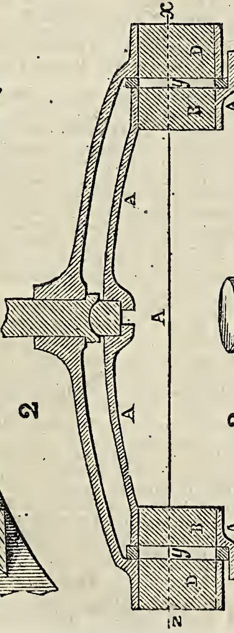
4



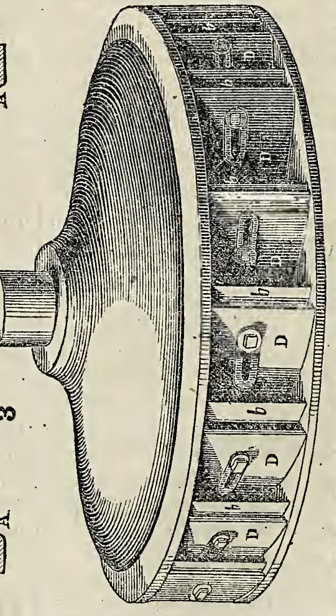
1



2



3



A very important object is claimed, and obtained in this patent, viz., the adjustable lip sliding on the inner face of the buckets to regulate the openings between the outer edges of the buckets, and thereby the flow of water from the wheel, thus adapting the lines of this turbine to the head of water and amount of work to be done, however varying these may be. The water is taken in at the bottom of the wheel and every inch of head is made available. In some situations at different times of the year, the head and quantity of water vary greatly; this wheel is specially adapted for such places. The wheel is simple, strong and durable, and not liable to be obstructed by ice. The inventor is of the firm of Jagger, Treadwell & Perry, Eagle Foundery, Beaver st., Albany, N. Y., where good castings can always be assured, and from whom more information can be obtained by letter or otherwise. We would state here, that we have seen some *unsolicited* letters from respectable persons who have been using this improved wheel, who speak in the highest terms of praise respecting its performances.

We are prepared to fill orders for these Wheels at short notice, and also for Mill Work of every description. Our assortment of Patterns is unequalled, having been collecting for more than 50 years. Mr. Jagger is a practical Millwright, and will be at all times ready to furnish information or drawings. Persons ordering wheels will please give a full description of the kind and amount of work to be performed, height of fall and quantity of water, length of shaft, and direction in which the wheel will be required to run.

JAGGER, TREADWELL & PERRY,
Eagle Foundry and Machinery Works,
April 1—3t. eom 110 Beaver Street, Albany, N. Y.

Balsam Firs, Arbor Vitæ, and other Forest Trees.

HENRY LITTLE & CO., of Bangor, Maine, will furnish any number of Evergreen and other Forest Trees, taken up with *earth on the roots*, with the greatest care, and sent to any part of the United States by steamboats or railroads, and carefully packed in large boxes, at short notice, at the following prices, viz:

From 6 inches to 1 foot, at 1 cent, or $10 per 1000.
From 1 foot to 2 feet, at 1½ cents, or $15 per 1000.

The above prices refer more particularly to Balsam Fir and Arbor Vitæ Trees.

We charge what the boxes cost, but nothing for packing.

For three years past, the trees we have procured and sent to a distance, have lived generally, and have given good satisfaction. Evergreens will not live unless taken up with great care. Bangor, Feb. 1, 1853—m3t.

Highland Nurseries, Newburgh, N. Y.

A. SAUL & CO., in inviting the attention of their patrons and the public in general, to their very extensive collection of FRUIT AND ORNAMENTAL TREES, SHRUBS, &c., &c., would respectfully inform them that the stock which they offer for sale the coming spring, is unusually fine, both as regards quality of trees and variety of kinds, &c.

The soil and climate of the Hudson Highlands, have rendered proverbial the success of the trees sent from here, to all parts of the Union, and the accuracy and precision so indispensable in the propagation of fruit trees, for which this establishment has long been celebrated, render errors in nomenclature of rare occurrence.

They have propagated in large quantities, all the leading standard varieties, which are proved best adapted for general cultivation, especially those recommended by the American Pomological Society; as well as all novelties both of native and foreign origin.

To particularize, within the limits of an ad ertisement, would be impossible; they refer to their general catalogue, a copy of which will be sent to all *pre-paid* applicants, on enclosing a Post Office Stamp.

The following comprises a portion of their stock, and are all of fine growth, viz:

PEARS—in 400 varieties, both standards on their own stock, for orchard culture; and on Quince for dwarfs, Pyramids and Quenouille for garden culture.

APPLES—in over three hundred varieties, both standards, and Dwarfs, also Cherries, both standards and dwarfs, Plum, Apricot, Peach, Nectarine, and Quince trees in every variety.

GRAPE VINES—(both native and foreign for vineries.) Gooseberies, (50 best Lancashire varieties,) Currants, Raspberry and Strawberry plants of all leading and known kinds, together with Seakale plants, Asparagus and Rhubarb roots, &c., &c.

ORNAMENTAL TREES, Shrubs and Vines, both deciduous and evergreen, suitable for street and lawn planting, embracing all the new and rare Conifers, Weeping trees, and Shrubs of recent introduction.

ROSES—in every variety, including Hybrid Perpetual, Hybrid Bourbon, Hybrid China and Hybrid Damask; Prarie, Boursalt, Ayrshire, and other climbing and garden varieties, as well as the more tender; Tea, China, Bengal, Bourbon, and Noisette kinds.

HERBACEOUS PLANTS.—A large collection of Pæonias, Phloxes, Campanula, Penstemon, Œnothera, &c., &c.

DAHLIAS and bedding plants, for the parterre and flower garden, in large quantities and variety.

HEDGE PLANTS—100,000, 2 year old, Buckthorn and Osage Orange plants; Arborvitæ for screens, &c., &c.

Dealers and *Planters* of trees, on a large scale, will be dealt with on the most liberal terms.

Newburgh, Feb. 20th, 1853.—mar—2t

Colman's European Agriculture.

EUROPEAN AGRICULTURE, from personal observation, by HENRY COLMAN, of Massachusetts. Two large octavo vols. Price, when neatly bound, the same as published in Nos., $5. For sale at the office of THE CULTIVATOR.

Samuel Moulson

OFFERS for sale at the Old Rochester Nursery, a very select and extensive assortment of Standard and Dwarf Pear, Apple, and Cherry Trees, and a limited assortment of Peach and Plum of small size. Among the Apple Trees are 20,000 large Northern Spies. The Pears consist of over 50,000 of all the leading and well established sorts. 10,000 Giant Rhubarb, producing large petioles of first quality, that bear carriage for market purposes better than any other sort; $60 a thousand eyes, or $10 per 100. Osage Orange, 1 year old, $8 a thousand—2 years, $10.

Also a large assortment of Ornamental items. Priced lists, and an inventory of the stock, with the heights of each variety, sent to all post-paying applicants forwarding a one cent stamp.

Also will be published early in March, Hints on Planting Orchards, and Culture of Fruits, Descriptive Lists of best sorts, and a synopsis of M. D'Albret's mode of forming Pyramidal Trees, translated from the French. Will be sent by post, on 27 cts. being remitted in a prepaid envelope. Office 36 Front-street, Rochester. Feb. 24—8—1tm1t.

Evergreen and Deciduous Trees.

THE subscriber is prepared to furnish to order, American Arbor Vitæ, American Larch, or Hackmatack, Silver Fir, Red and Black Spruce, American Hemlock and White Pine.

Also Elm, Maple, Birch, Beech, Ash, and High Cranberries, at very low prices—6 inches to 6 feet high—faithfully taken up and packed, so as to bear rough handling, and go to any of the Western and Southern states—from Boston, by railroad and boats. For terms, &c., address, post-paid,

WM. MANN, Bangor, Me.

Feb. 10, 1853—m3t.

Valuable Potatoes for Sale.

THE subscriber offers the following valuable varieties for sale, a part of which are described in the last volume of the Transactions of the State Society.

This Society awarded him a special premium at the State Fair at Utica, and also $100 at their meeting at Albany during the present month, (Dec.,) as encouragement in these experimental efforts.

1st. *The Rough Purple Chili*, imported from South America, April. 1851, at a great expense. In yield, hardiness, and table-quality, it has no equal. Price $10 per bushel.

This potato yielded me this year ninety-two from one, by measure; while to Mr. Delafield of Geneva, it yielded one hundred and twelve from one, by weight.

2nd *Seedlings originated in* 1849. They are hardy, productive, and fit for the table. Price $3 per bushel.

Many of these have been tested this year, under the eye of the State Society, and have yielded from twenty to sixty-four, from one.

3d. *Seedlings of* 1852. These consist of many choice kinds, selected from four thousand two hundred varieties, grown mostly from seed balls of No. 1 and 2, above. This collection was made with great care in regard to hardiness, flesh, yield and mode of growth; and it is believed to afford a basis for the entire renewal of the potato crop in our country. Price $10 per bushel.

4th. *Potato seed—from the seed ball.* This was borne by No. 1 and 2 above. It has been proved, and is warranted to yield a large proportion of hardy, productive and shapely varieties. Price $1 per paper; each of which contains over one thousand seeds. These will be sent by mail, the postage to be paid by myself.

☞ Each parcel of potatoes ordered, will be put up with care, the kinds kept separate, and forwarded by express, canal, or private conveyance, as soon as the weather will permit, at the expense and risk of the purchaser.

Nos. 1 and 2 are advised for immediate field crops, and No. 3, for new sorts for the years following.

Persons passing through Utica, are invited to call and see specimens at the store of Wm. Bristol & Co., Druggists, No. 108 Genesee-street, or at the house of the subscriber, near the Insane Asylum. C. E GOODRICH.

☞ Orders answered for cash only.

REFERENCES—The Officers of the State Ag. Society; John Delafield, near Geneva; J. P. Fogg, of the Agricultural Warehouse, Rochester; Wm. Bristol & Co., Utica; Chas. Tracy, Esq. New-York city; C. L. Whiting, Granville, Ohio.

Utica, Feb. 15.—2t.

Devon Cattle.

THE subscriber offers for sale four full blood Devon Cattle one full blood two-year old Bull, and three Bull Calves The Cows sprung from the stock of the Messrs. Hurlbut's, which is well known for its goodness and purity of blood.

Address L. H. COLBY, Scipioville, Cayuga co., N. Y.
3—2tc2t

United States Agricultural Warehouse and Seedstore.

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine—also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, arm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers Jan 1, 1853—m&wtf

---

Farm Implements for California.

BURRALL'S PRIZE REAPERS, MOWERS, *Threshers, Separators, Clod Crushers, Field Rollers, Cultivators, Horse Powers, &c.*—all warranted of the best material and workmanship. Strong, compact, and reliable, expressly for that market.

Made and sold cheap for cash, by THOMAS D. BURRALL, Geneva, Ontario Co., New-York.

Feb. 10, 1853—7—13t.—m3t.

Agricultural Implements.

STRAW AND STALK CUTTERS—of all patterns.

CORN MILLS—both of Iron and Burr Stone.

CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.

ROAD SCRAPERS—of several patterns.

FANNING MILLS—of all the best makers.

SAUSAGE STUFFERS AND CUTTERS—of all patterns.

VEGETABLE OR ROOT CUTTERS—of approved kinds.

CORN SHELLERS—for hand and horse power.

VEGETABLE BOILERS—of Mott's and Bent's patterns.

GARDEN AND WHEEL BARROWS—of iron and wood.

HAY AND COTTON PRESSES—Bullock's patent

BRICK MACHINES—of Hall's and other makers.

WAGONS AND CARTS.

PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam PLOWS—Eagle, Massachusetts make, and Minor & Hortons.

For sale at the State Agricultural Warehouse, No. 25 Cliff Street, New-York. Nov. 1—tf.

Improved Sub-soil Plow.

THIS Plow requires less team than any other, and therefore disintegrates the soil more deeply, and at less cost. For sale at the manufacturer's agents, No. 25 Cliff St., near Fulton, by LONGETT & GRIFFING, New-York.

March 1—2t.

Valuable Farm for Sale.

THE subscriber offers for sale four hundred and fifty acres of land, being a part of his homestead, and comprising two hundred acres of as desirable land as any in Addison county—lying on the main road four miles north of Vergennes on the border of Lake Champlain, and one mile from the Railroad Station. It is under good cultivation, and furnished with commodious buildings. The remaining 250 acres is wood land; a portion of it covered with a heavy growth of hemlock and other valuable timber, and the remainder with the best quality of wood for fuel. The property will be sold together or in parcels. Postpaid inquiries promptly responded to.

ROW'D T. ROBINSON,
Aug. 1—tf. Ferrisburgh, Addison co., Vt.

Wanted.

A PERSON who understands "thorough draining," as practiced in England—especially as applied to swamps. None need apply, except such as have a practical knowledge of the subject, and are competent to undertake a work of the kind. Address or apply in person to F. SHELDON, No. 40 Wall-street, New-York.—Feb. 1.

Agricultural Implements.—Field Seeds.

THE subscriber, occupying three large stores, which are filled with Agricultural Implements, asks the attention of the public to the most numerous assortment ever yet offered in New-York. Among these are Plows of more than a hundred different kinds, Harrows, Rollers with iron sections, Seed Sowers and Corn Planters, Cultivators, Reaping and Mowing Machines, Horse Powers, &c.

Field Seeds—Lucern, Ray Grass, Timothy, Clover, Belgian Carrot, Sugar Beet, Mangel Wurzel, Ruta Baga, Early Potatoes, &c.

Garden and Flower Seeds of the choicest sorts.

Peruvian Guano and other Fertilizers. R. L. ALLEN,
New-York Agricultural Warehouse and Seed
March 1—tf. Store, 189 and 191 Water St., N. Y.

Grass Seeds.

TIMOTHY, Red and White Clover, Lucern, Ray Grass, Kentucky Blue Grass, Orchard Grass, Red Top, and Lawn mixed grass, all of the best quality. For sale by LONGETT & GRIFFING, No. 25 Cliff St.,
March 1—2t. near Fulton, New-York.

Garden Seeds for 1853.

New-England Agricultural Warehouse & Seed Store,

No. 51 and 52 North Market-st., Boston.

THE subscribers would announce to the public, that their supply of Garden Seeds for 1853 is now complete, including many new and valuable varieties. Orders should be sent as early as possible—and persons ordering may rest assured that no pains will be spared to insure their satisfaction. Seeds put up so as to be sent to any part of the United States with perfect safety.

Early Emperor Peas,	Champion of England,
Hill's Early "	Queen of the Dwarf,
Kent's Early "	Victoria Marrow,
Prince Albert, very fine, early,	Monastery Marrow,
Cedo Nulli	Blue Imperial, improved,

and many other fine varieties.

Shilling's Early Queen Cabbage, Mason's Early Drumhead, Green Globe Savoy, Early York, Early Dutch, Drumhead, Early and Late Sugarloaf, Early Hope, Turnep Rooted, Purple Green Top, and other fine kinds.

Early Walcheren Cauliflower, and many other varieties. Early Flat Bassano Beet, extra fine and early, and all other varieties. Also every variety of Vegetable worthy of cultivation.

The finest FLOWER SEEDS of every known variety and species, cultivated by ourselves, and imported from abroad.

Catalogues will be sent on application by letter, with one postage stamp enclosed. JOSEPH BRECK & SON,
Seedsmen and Florists, 51 & 52 North
Feb. 24—8—1tm1t. Market Street. Boston

Corn! Corn!!

SIXTY distinct varieties, including all the kinds exhibited at the last Fair of the American Institute, with names, time of ripening, mode of culture, &c, &c. Eight kernels of each, making 480 kernels, will be sent to any part, on receipt of $1. Apply to WM. WEEDON, at Smith's Seed Store, 388 Broadway, New-York. Feb. 24.—8—2t*

Basket Willow.

CUTTINGS of the best kinds of basket willow, (with directions for cultivation, for sale at $5 a thousand, by WM. H. DENNING, Fishkill Landing, Dutchess County.

March 1—m2t.*

Albany Drain Tile Works.

No 60 Lancaster Street—West of Medical College, Albany.

THE subscriber has now on hand, Draining Tile of the following descriptions. Prices reduced.

HORSE SHOE TILE.

5½ inch Rise, or 4½ inch Calibre,	$18 00 pr. 1000.
4½ " " 3½ "	15 00 "
3½ " " 2¾ "	12 00 "

SOLE TILE.

4½ inch Rise, or 3½ inch Calibre,	$18 00 pr. 1000.
3½ " " 2¾ "	12 00 "

These Tile are over one foot in length, and are so formed as to admit water at every joint, draining land from 12 to 20 feet each side of the drain—being the cheapest and most durable article used.

Tile sufficiently large for drains around dwellings, at $4 and $8 per 100 pieces. Orders from a distance will receive prompt attention.

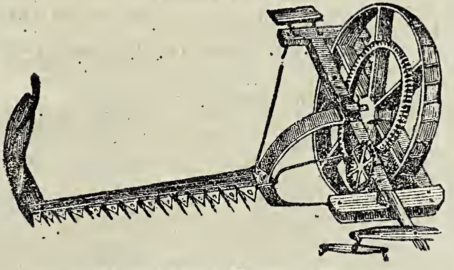
Albany, April 1, 1852—tf. JOHN GOTT.

The Lodi Manufacturing Company

OFFER their Poudrette this season at their usual rates, viz: One barrel, $2.00—2 barrels, $3.50—3 barrels, $5.00—5 barrels, $8.00—6 barrels, $9.50, and any amount over 6 barrels $1 50 per barrel. Delivered free of cartage or other expense, on board of vessel or railroad, in the city of New York. ☞ A small trial requested.

This article is so well known, and so universally approved of as a manure for corn and garden vegetables, that an extended advertisement is scarcely necessary. The Company will send free of cost, to any one wishing further information, a pamphlet containing instructions for use, &c.—also certificates from Hon. Daniel Webster, A. J. Downing, and others, together with other interesting matter. Orders sent by mail, enclosing money, will be promptly acknowledged. All communications must be post-paid, and addressed to the "Lodi Manufacturing Company, New-York," office 74 Cortland Street. Jan. 1—m5.w5t

---



Ketchum's Patent Mowing Machine.

Howard & Co., Proprietors and Manufacturers,

Buffalo, N. Y.

THIS justly celebrated machine has been steadily advancing in public favor, for its simplicity, durability and efficiency—and it has settled the question beyond a doubt that grass can be cut by Horse Power: for, during last season, Five Hundred of these Machines were sold by us, and universally approved by those who used them. Farmers were daily in the habit of cutting from ten to fifteen acres per day, with ordinary driving. It leaves the grass uniformly spread over the ground, requiring no turning to cure properly. In the Report of the Committee who served at the Trial of Mowing and Reaping Machines, held at Geneva in July last, they show fully and conclusively *this to have been the only Machine in the field which cut its allotted two acres, without clogging or any interruption*, doing its work admirably, and in far better manner than can be done by manual labor with a scythe.* *Our* knives are not *sickle edged*, consequently do not clog at every little hummock or bog they may happen to come in contact with.. The Committee also show that there is an actual saving, by the use of this Machine over hand labor, of thirteen dollars per day. We have only to ask those who want a *perfect* Mowing Machine to examine the Repor and judge for themselves. This Machine took the first premium as a mower, at the trial in Springfield, Ohio; a gold medal at the Fair of the American Institute, N. Y., also, first premium at the Provincial Fair, at Toronto, C. W.

They are so very compact that one of them can be easily carried in an ordinary one-horse wagon, and so very simple that it requires no machinist to put it together, as there are but two bolts (beside the pole bolts) to be secured to have the machine ready for use, and which does not require over ten minutes time. They weigh about 750 lbs., and can be worked by any boy who can manage a team. We have made all the improvements suggested by experience in the way of strength, durability, &c., and sell them under the following warranty: That said machines are capable of cutting and spreading with one span of horses and driver, from ten to fifteen acres per day, of *any kind of grass*, heavy or light, wet or dry, and do it as well as is done with a scythe by the best of mowers. They are equally capable of cutting Barley, Buckwheat, Millet, &c. It is much less trouble to keep the knives in order than a scythe, as they have frequently been known to cut from ten to fifteen acres without sharpening, which can be done on an ordinary grind stone in a few minutes. We can give any reference required for the full performance of our machine, as above stated.

Orders should be sent in early, as we shall manufacture but a limited number. The price of our Machine, including two sets of Knives, Extra Knife Blades, Wrench, &c., is $110, cash, in Buffalo, the machine to be delivered on board of boat or cars free of charge.

Office and Shop, corner of Chicago street and Hamburgh canal, near Eastern R. R. Depot, Buffalo.

Feb. 24—9—2tmtf. HOWARD & CO.

Manures.

PERUVIAN GUANO, 2¼ to 2½ cents per pound.
BONE DUST, when taken in equal quantities, $2 25 per barrel.
BONE SAWINGS, separately, $2.50 per barrel.
PLASTER, $1 to $1.25 per barrel.
POTASH, 3¼ to 4 cents per pound.
CHARCOAL, $1 per barrel.
SULPHURIC ACID. 2¼ to 2½ cents per pound.
SUPERPHOSPHATE OF LIME, 2¼ cents per pound.
WOOD'S RENOVATING SALTS, one cent per pound.

For sale at the State Agricultural Warehouse, No. 25 Cliff-street, New-York. LONGETT & GRIFFING.

Feb. 1—ctf.

Super-Phosphate of Lime.

THIS extraordinary fertilizer, the effects of which as a manure and general assistant to soils, has proved itself invaluable to the agriculturist. This most important constituent of the soil is being daily removed and taken up by plants in solution, and unless such substance be returned, fertility must decrease, and land become poor. Its promoting and pushing power of growth, in giving strength to plants while in their young and tender state, fortifying them for early maturity, and enriching qualities, excells over all other manures. It is some ten *years* since its first introduction in England, where also a patent right was granted the first *maker* after the experiment *was* proved of its magic effects on land. The progressive high repute of its properties has caused the demand each year to increase, and at the present time some thousands of *tons* are annually sold to the farmers. The subscriber has had much experience in the manufacture of this manure in Europe, which leads him to suppose he stands unequalled by any other more able competitor. Some considerable quantities were disposed of last season, the beneficial result of which *has caused* all that watched its *power* to send orders for delivery in the coming spring. Being in a perfect powder, it is at once easy in handling, may be *sown* with seed, broadcast, or drilled in. To prevent deception, henceforward all bags or other packages will be branded with the maker's name. It is on sale at the following agricultural warehouses in New-York.

Longett & Griffing, 25 Cliff Street, N. Y., and R. L. Allen, late A. B. Allen's, 189 Water Street, N Y, where purchasers may be sure of obtaining a chemically pure and genuine article. Enquire for De Burgh's No. 1 Super-Phosphate of Lime. March 1.—m3t.

$500 IN PREMIUMS.

Special Announcement.

IN order to bring the magazine business back to the old channel of *the mails*, under the reduced postage, the publisher of

GRAHAM'S MAGAZINE

offers premiums amounting to FIVE HUNDRED DOLLARS to the Postmasters or residents of any post-towns in the United States, who will send the largest number of subscriptions, *through the mails* prior to the *first of July*, 1853.

First Premium, $200 for the Largest Club.
Second Premium. $150 for the Second Best.
Third Premium, $75 for the Third Best.
Fourth Premium, $50 for the Fourth Best.
Fifth Premium. $25 for the Fifth Best.

And to the TEN next largest a splendidly bound copy of GRAHAM, for one year, with five-dollar binding.

The list of the competitors will be published complete at that time, so that the utmost fairness may be manifest. A statement will also be published on the 10th of June, of those towns which have entered into competition, with the number of subscribers sent from each, up to that time.

The Books of the office will also be subject to the inspection of competitors, and every evidence of *good faith* furnished.

THE TERMS ARE—

Single subscribers,................	$3
Six subscribers, one year,...	10
Ten " "	16
Thirteen " "	20

Single subscribers may be added, at any time, at the rate of the first club sent.

Competitors need not confine themselves to one post-town, but the names must be forwarded by the competitor *himself*, whether from one or more towns, so as to prevent confusion.

Address, GEO. R. GRAHAM,
134 Chestnut street, Philadelphia.

P. S.—We presume that no Postmaster, with whom we have done business, nor any Editor with whom we exchange, will for a moment doubt, that the statements set forth, as above, *will be lived up to, to the letter, in all respects.* G.

Feb 1—m3t.

Albany County Ag. Society.

APPLICATION having been made to the subscriber, *Clerk* of the County of Albany, to call a meeting for the organization of a County Agricultural Society,

Notice is hereby given, that a meeting will be held for that purpose, at the State Agricultural Rooms in the city of Albany, on Thursday, the 14th of April next, at 11 o'clock, A. M.

ROBERT HARPER, Clerk.

County Clerk's Office, March 17, 1853—11—4t—m1t.

A. L. Bingham's 3d Annual Sheep-Shearing Festival.

THE undersigned gives notice, that he will hold his Third Annual Sheep Shearing Festival, at the well known resort of James K. Hyde, in Sudbury, Rutland county, Vt., on the 1st and 2d days of June next, commencing at 10 o'clock.

He proposes to shear publicly, from fifty to one-hundred French Merinos Ewes, with a view to enable all interested in this branch of production, to see and judge for themselves of the weight and value of these sheep compared with others. All Wool Growers and Manufacturers interested, are respectfully invited to attend.

Several very superior Bucks and Ewes of the best French importations and stock, will be on exhibition, and for sale.—A number of gentlemen, largely interested in the celbrated Black Hawk and other Morgan horses, have signified their intention to avail themselves of the occasion to exhibit a splendid collection of the best horses in Vermont.

A. L. BINGHAM.

West Cornwall, Vt., March 14, 1853.—2t

Sale of Short Horned Cattle.

I WILL sell by Auction, at my residence, on Wednesday, 8th June next, at 1 o'clock P. M., about Thirty thorough bred Short horned Cattle. About twenty of them are Cows and Heifers, the remainder young Bulls. Nearly every animal is the produce of the Imported Bull "Yorkshireman" and 3d "Duke of Cambridge," bred by the late Thomas Bates, Esq., of Kirkleavington, England, and "Earl of Seaham" and "Vane Tempest," bred by John Stephenson, Esq., of Durham, England, and are of his famous Princes family.

The upset prices of these animals will be from $150 to $300, as to age, &c., &c.

I will also offer the above named Imported Bull, "Vane Tempest,"—his upset price is $1000.

TERMS—Cash, or satisfactory notes at three months, payable at the Bank of Auburn, with interest.

I will also have for sale at that time a few South Down Rams and Suffolk Pigs.

Catalogues will be ready about 15th March next, and will be found with

A. B. Allen, Esq., 89 Water street, New York.
Sanford Howard, Esq., Cultivator office, Boston.
Luther Tucker, Esq., and B. P. Johnson, Esq., Albany.
L. F. Allen. Esq., Black Rock.
M. B Bateman, Esq , Columbus, Ohio.
W. T. Dennis, Esq., Richmond, Indiana, and with the subscriber.

J. M. SHERWOOD.

Auburn, N. Y., Feb. 24—9—e.o m—m.

To Flax Growers.

THE subscriber has invented and builds to order, a FLAX MACHINE, which, attended by two hands, is guaranteed to dress from three hundred to four hundred and fifty pounds of flax per day. The saving in labor and tow, by comparison, is considered equivalent to the cost of dressing flax by the best common machinery, used in this country and Europe. The new machine is made with care, to secure strength and durability, and can be run at a speed which requires more than two hands to attend it. Unrotted flax straw can be dressed by it. It can be driven by horse power or otherwise; and, being portable, can be sent any distance. For the present, the price of the machine complete, is $400. Those who wish to obtain it in season to begin operations next autumn, will do well to apply soon.

S. A. CLEMENS.

Springfield, Mass., March 9, 1853.—mtf.

White Shanghai Fowls.—$10 per pair.

EGGS for hatching, from fowls of the above named breed, will be carefully packed, and delivered to any Express in Boston, by addressing, (post-paid,) JOSEPH S. HILDRETH, 51 Court St., Boston, Mass.—$2 per dozen.

N. B—The subscriber's fowls were bred from the stock of Dr. Eben Wright, that have taken the lead at every exhibition where they were present. March 17—m2t.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y. Braintree, Mass.

Seeds! Seeds!

CLOVER and Timothy Seed, early and late Peas, Beans, Potatoes, Corn and all others kinds of Field Seeds, and all Garden Seeds.

Also, Green-House and Hot-Bed plants, Fruit and Ornamental trees, in their season.

All articles sold will be warranted as represented.

April 1—m1t. DANA BROTHERS, Utica, N. Y.

Fowls and Eggs For Sale.

THE subscriber has yet a few choice pairs of the following varieties to dispose of. Cochin Chinas, Grey Shanghai, Buff do. of Perley stock, Buff do. of Marsh stock, Black do., White do. Golden Poland, Silver do. Bolton Greys and Java Bantams. Also, Eggs of all the above varieties. Also, Bremen Geese. E. E. PLATT.

Albany, April 1, 1853—2t.

Cultivators,

OF several styles, and ranging in prices from $4 to $6,50. Also, Teeth sold separately.

CORN PLANTERS—Emery's and Batchelder's Patents, warranted to plant Corn better and more accurately than it can be planted by hand—will plant one acre per hour.

SEED SOWERS—for sowing all small seeds.

MORGAN'S NEW DOUBLE LEVER PREMIUM CHEESE PRESS—The cheapest, the simplest and most durable. Also, Kendall's Cheese Press.

CORN SHELLERS, Cast Iron and Wood—different styles and sizes, and from $6 to $12.50.

STRAW CUTTERS—Daniel's far-famed hand and power Cutter, straight knives, heavy and warranted to cut hay, straw and corn stalks well, and equal to any in use.

Thermometer Churns, Fanning Mills, Vegetable and Root Cutters, Mott's Vegetable Boilers and Agricultural Furnaces, Garden and Canal Wheelbarrows, Shovels, Spades, Forks, Grindstones, and all other articles used on the farm.

For sale at DANA BROTHERS, 91 Genesee street, Utica. April 1—m1t.

Dana Brothers, Utica, N. Y.

MANUFACTURERS and Wholesale and Retail Dealers in Agricultural and Horticultural Implements and Machines, are prepared to supply Farmers and Dealers with every variety of Agricultural Implements and Machines, Horticultural Tools, &c , at their Warehouse, No. 91 Genesee-street, Utica. April 1, 1853—m1t.

Mexican Wild Potatoes.

THE subscribers have the pleasure of informing their friends and the public, that they have received a small lot of the above remarkable Potatoes, which they offer for sale at $4 per bushel, or $1 per peck.

These potatoes were originally brought from Mexico, (where they were found growing wild,) about five years ago, and were planted in the western part of this State, where their size, productiveness, hardiness and total exemption from rot, attracted the attention of the intelligent farmers of that region, causing the demand for them last season to be so great, that they readily sold at $10 per bushel. They ripen early, and are frequently six or seven inches in length; skin very thin, white; eyes shallow; and flesh white, boiling very mealy. They are also very productive, one hundred bushels having been, under proper management, raised from two bushels of seed potatoes.

We also have on hand, Hall's Early June, Excelsior, Carters, Early Kidney, Bennett's Early, Early Sovereigns, American Flower Balls, and other choice varieties.

GEO. H. BARR & CO.,
April 1—1t 53 Cortland-st., New-York.

THE CULTIVATOR:

A MONTHLY JOURNAL OF

Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 CENTS A YEAR.

This standard AGRICULTURAL MONTHLY commences with the new year, its THIRD SERIES. It is published in the same superior style, and will now be more valuable than ever, as the choicest Agricultural and Horticultural articles in THE COUNTRY GENTLEMAN will appear in its pages. The price hereafter will be as follows:

Single copies, Fifty Cents—Eight copies $3—any larger number at the same rate.

All subscriptions must commence with the January No., and the payments must in all cases accompany the order for the paper.

LUTHER TUCKER,
Publisher, Albany, N. Y.

FORBES. VAN VRANKEN. N.Y.

THE CULTIVATOR.

THIRD ℭ𝔬 𝔍𝔪𝔭𝔯𝔬𝔳𝔢 𝔱𝔥𝔢 𝔖𝔬𝔦𝔩 𝔞𝔫𝔡 𝔱𝔥𝔢 𝔐𝔦𝔫𝔡. SERIES.

VOL. I. ALBANY, MAY, 1853. No. V.

Management and Economy.

IT is a subject worthy of inquiry, why some farmers, with only moderate means and with the growth of no extraordinary crops, make handsome yearly profits, while others with equal or superior means, and often perhaps with larger products in certain cases, accomplish little or nothing as an aggregate gain. The answer to this problem will doubtless be afforded by the superior management in the arrangement of the complex machinery, in conducting the multifarious work of the farm. We believe that a bird's eye view of an entire year's operation, would often greatly assist the farmer in improving his farm arrangements, and perhaps a few very brief suggestions may, at the present season of the year, afford some valuable assistance in accomplishing this purpose.

The first great object in all farming, is, of course, to obtain from a given quantity of land, the largest product with the least outlay or consumption of capital. To secure this result, the following points should be attended to:

1. The land must be in such condition as to admit of working at all times, or nearly so, so that men and teams may not be standing idle, in waiting for the land to acquire a suitable degree of dryness. Hence, if naturally wet, it must be well under-drained.

2. Its condition should be such as to admit of the application of manure to good advantage, by thorough intermixture and otherwise—and not to render it useless by being enveloped with water or water-soaked earth.

3. A high degree of fertility should be maintained—as the same labor in that case will yield a larger result.

4. A thorough eradication of weeds and their seeds, will save much subsequent labor in contending against them, as well as save much of the fertility of the soil from waste in their useless growth.

5. A saving of the materials of manure should be carefully attended to, as one-half at least of the solid and liquid portions are usually wasted by a neglect to provide absorbents or reservoirs.

6. Selecting crops, and selecting a proper proportion of each, is of the highest consequence. The market value of one crop may be higher than that of another, but if it draws hard on the strength of the soil, or costs much labor, or if the labor required be at a time when there are other important drafts upon it, such a crop should not be often repeated.

7. Everything should be done as cheaply as possible, for which purpose crops should be arranged so as to distribute the labor equally through the year, that men and teams may not be idle at one period, and hardly driven at another, or in other words, that too much business may not at times accumulate for its thorough completion in season. It frequently happens that the difference between profit and loss depends on this alone.

8. Nothing is more important than the distribution of crops in a rotation, as they exhaust the soil differently, or what one takes from the land, another leaves; hence the greater variety of farm products, the more perfectly the balance will be maintained in the soil. For example, wheat, barley and oats, are regarded as silica plants, or those which consume more largely the soluble flinty portions; peas, beans, and clover, are lime plants; potatoes and turneps are potash plants; these different classes should be distributed so as to preserve the ingredients of the soil, if we may use the term, in equilibrium. To preserve, also, a clean state of land, sowed and hoed crops should be alternate with each other.

9. A system comprising a proper intermixture of tillage and grass crops and raising domestic animals, should be carefully made out and adopted. Grain crops often afford the highest immediate

profit, but domestic animals serve the indispensible purpose of supplying manure; hence, in estimating the profit of raising and fattening cattle, sheep and swine, the very important means they serve in providing pabulum for tillage crops, should be carefully taken into account, a thing too often thrown entirely out of the question.

We briefly mention these different points in successful farming, not as anything new, but for the purpose of recalling the attention of farmers, who, by careful observation and accurate records, can arrange the details of adjusting their own operations, better than by any particular rules we could lay down for their guidance.

Sowing Corn for Fodder.

The value of corn-stalks for fodder, is many times mentioned in late volumes of the Cultivator; but I do not recollect having seen anything very complete and full on broad-cast cultivation. It is no matter of doubt, that an acre of corn-stalks will furnish a much larger quantity and value of winter feed for cattle, than the same extent of meadow. Most farmers are *afraid* to try it, for the reason that it is supposed that the succulent stalks are difficult to cure, when mown before maturity. Very many farmers, and good farmers too, have little idea of the great value of *well* cured stalks.

For the benefit of the subscribers to the current vol. of the Cultivator, will you give us in time for the season's use, an article on the culture and best mode of preserving the crop. WM. H. SCOTT. *Adrian, Mich., Feb.* 10, 1853.

We have cultivated corn for fodder for many years, and find it, all things considered, the most profitable crop we can raise. It may be sown during the comparative season of leisure just after corn-planting, and secured at the next season of leisure just after haying and harvesting. After repeatedly cropping the same ground, we are satisfied that it rather enriches than impoverishes the land, no grain being formed, and a vast bed of roots remaining. Nothing is equal to it for reducing rough, turfy, weedy land, to a state of cleanliness and good tilth. We believe it the best fallow crop in the world, to precede wheat.

It should never be sown broadcast. The imperfections of this mode are the chief reasons that the crop has not become more generally introduced. It requires more seed, and leaves the ground in a fouler condition than when sown in plowed drills. We have tried both ways to our entire satisfaction as to the comparative value of each. The following is the best mode for sowing, cultivating, and securing the crop:—

Plow and harrow the ground as for any other crop; furrow it with a one-horse plow, three feet apart; let a man pass along one of these drills with a half-bushel basket on his left arm containing shelled corn, and strew the seed in the furrow at the rate of about 40 or 50 grains to a foot, which will be about 2½ or three bushels per acre. He will do this evenly, with a little practice, as fast as he can walk. If sowed thinner, the crop will be smaller. We have found by accurately weighing and measuring, that 20 grains to the foot yielded only two-thirds the crop afforded by 40 grains to the foot. Immediately after the sower, follows a man with a one-horse harrow or cultivator, or with a two-horse harrow, *lengthwise* with the furrow, and covers the seed. Two men will thus plant six or seven acres in a day.

When the corn is six inches to a foot high, run a one-horse cultivator between the rows. This is all the dressing the crop needs. No hoeing is necessary, for the dense growth soon smothers down all else; and in the autumn, when the crop is cut off, the earth is left as clean as a newly plowed field.

It is to be harvested about the first of autumn. If the crop is very heavy or much "lodged," it is cut by reaping. If straight and even, a common scythe will answer the purpose, a little practice enabling the operator to throw it smoothly with the heads in one direction. After partly drying, for a day or two, the best way is to tie it in bundles and put it up in large shocks, although raking by a horse into winrows for cocks, might answer well for large fields. It must dry for some weeks. It can *never* be safely put into *large stacks.* The most perfect way would be to place it in small stacks or long upright rows, under a large shed. Even if the stalks appear perfectly cured after several weeks exposure, they will certainly heat and spoil if stacked in the ordinary way. Hence, the stacks must be quite small, freely salted, and well ventilated by means of three or four poles placed upright in the center. We have found the stalks to retain a good condition when left in large well made shocks on the field, till wanted in winter. Curing is the only difficulty with this crop, and this ceases when understood.

Land that will yield thirty bushels of corn to the acre, will afford about *five tons* of dried fodder. Moist land is better than very dry, as it is more affected by drouth than ordinary corn crops. We have not found the cost, including interest on the land, to exceed $1.50 per ton for the dried fodder.

For soiling, or feeding green, corn fodder often proves of the highest value, when pastures are burnt by drouth. For this purpose, it may be sown at different periods till mid-summer.

Cost of Growing Indian Corn.

MR. TUCKER—It is hard to make some of our *eastern* friends believe that corn can be raised in the *west*, at a cost of five, or even ten, cents per bushel. The past season, I have cultivated two acres of corn and pumpkins, at a cost of $13, including cutting up and hauling out of the fields, (the fodder will pay the husking)—had 80 bushels of corn, worth forty cents per bushel at the crib, $32; seven loads of pumpkins sold in the field for $8.75; ten loads kept at home, at $1 per load, $10. Hundreds not merchantable were left on the field, but not lost.

The account stands thus—

80 bushels of corn, at 40 cts. per bushel,....	$32 00
7 loads pumpkins, at $1.25 per load, ...	8 75
10 " " at $1 per load,........	10 00
Amount,........................	$50 75
Cost of culture and hauling out,............	13 00
Balance in favor of the field,............	$37 75

A gentleman offered to pay all the cost of culture, &c., for the pumpkins, and take them on the ground. Now, if I had done so, what would the corn have cost me per bushel? Cypher it up, and communicate the result through the Cultivator. THURSTON WOOD. *North Madison, Jefferson Co., Ind. ,Feb.* 7, 1853.

Clod Crushers.

Last summer, when witnessing the trial of agricultural implements at Geneva, and the ineffectual attempts of the harrows and cultivators to reduce a very cloddy field to a suitable condition for the wheat-drills, we could not help thinking of the magical effect which would have been wrought by a good *clod-clusher*. We have already furnished our readers with a figure and description of Croskill's implement for this purpose, but as the cost is some $70 or upwards, it is beyond the reach of small farmers. Since publishing that account, we have examined a very simple, cheap, and effective clod-crusher, which has been used to great advantage on a heavy and cloddy soil by David Thomas, near Aurora, Cayuga co., N. Y. A similar implement has been formerly described in some of the agricultural journals, but a description of this, and of its construction, use, and effects, will certainly be acceptable to our readers.

It is nothing more than a modification of the drag-log or drag-roller, and consists merely of a log dragged or drawn side-foremost over the ground, reducing or grinding to powder, in its progress, every clod over which it passes. The greater the diameter of the log, the more easily, as a matter of course, it will be drawn over the ground, and the less will be the liability of its clogging by gathering the clods before it.

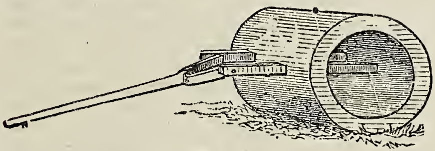


Fig. 1.

Fig. 1 represents the ordinary two-horse implement. It is made of a hollow log about six or seven feet long—hollow, because it will be much lighter for the same diameter. Two pieces of scantling are inserted and fixed near the middle, which serve as the hounds for the reception of a common two-horse wagon tongue, which may be used for the occasion. This constitutes the whole of the machine, and may be made in two hours by a man accustomed to the use of tools, the hollow log having been already provided. When one side of the log has become worn by long use, half a minute's work in changing the tongue will invert it. It often happens that the weight is not sufficient, when the man who drives the team mounts and rides upon the log.

As a single instance of the value of this clod-crusher,—it was used upon a piece of tenacious soil after a good coat of manure had been spread, and which had been so repeatedly cropped as to produce almost nothing. It ground both clods and manure so intimately together, that after a repetition of the operation, with an intervening harrowing, no trace of the manure was visible—the whole had become one homogeneous mass. D. Thomas gave it as his opinion, and as the result of careful observation, that one load of manure thus treated, is worth at least five loads applied on such land in the ordinary way. The crop was very luxuriant, and so complete was the pulverization, that the man who hoed it said it was the mellowest ground he ever worked.

Fig. 2 represents a similar implement, about three feet in length, which was made for working between the rows of a crop of corn. The spring had been unusually wet, plowing had been delayed, and when performed, had left the field not unlike a mass of mortar. On this the corn was planted, but during the early part of the season made very little growth. The clod-crusher was then run between the rows, after plowing and cultivating, making the whole, as the hired man said, as mellow as ashes. As soon as the roots extended into this bed of powder, the growth became very luxriant, and the field yielded a crop of over forty bushels per acre, where, without the crushing operation, not over ten would have been obtained. Both of these crushers were roughly made, and did not cost over fifty cents each, after the log was procured.

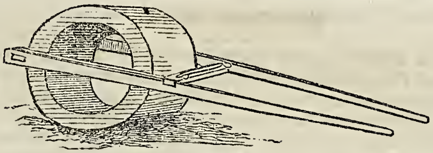


Fig. 2.

Where a hollow log cannot be had, and a solid one of sufficient size would be too heavy, it may be split through the middle, and one-half or less taken and used with the rounded side downward.

◆

Making and Saving Manure.

I saw an article in the February Cultivator, under the head of Making and Saving Manure, the sentiments of which I cannot fully endorse. That the making and saving of manure, is all important to the farmer, all will admit; but as to the best mode, is another question. In the first place, I do not agree with "Composter," in manufacturing horse manure in the manner spoken of by him, by the aid of the animal manure, because the process of scattering the corn in the yard to induce the animals to turn the manure, is a piece of work they do not understand, and consequently would not be likely to be well done. 2d. Because by thus turning up the manure, the ammonia will naturally escape to a greater or less extent, which ought if possible, in every barn or hog yard, to be retained, and which can be done by the frequent application of plaster over the yard, and which also facilitates the process of decomposition, and also benefits the crop to which the manure is applied.

The best plan, in my opinion, is to scatter the stable manure, which is more likely to heat and evaporate than almost any other kind, over the barn-yard; treating it as above stated, and hauling the manure out in the spring upon the corn ground, instead of leaving it in the barn-yard exposed to the sun and rains, causing loss by evaporation, &c., making an open fallow for wheat, dressing with what manure can be gathered during the summer from various parts of the farm. These ideas were suggested, upon reading the article headed as above; if you consider them of any value, you can dispose of them as you think best. D. B. K. *Ringoes, N. J., Feb.* 7, 1853.

◆

☞ The horse "warranted to stand without tying," which a man bought at an auction the other day, is offered for sale by the purchaser, with the guarantee that "he will not move without whipping."

The Fowl Mania.

In remarking on the "Fowl dealings of foreigners," Punch, after alluding to the immense number of eggs,—some hundred million or upwards,—imported into England from France, to the great detriment of the British farmers' profits, asks the indignant question, "how much longer will they endure this foreign yolk?" The hen fanciers seem to have become equally indignant, for the madness they have evinced in the direction of high prices, rather exceeds a similar development in this country. Their labors are certainly needed, for the phrase, "a new laid egg," is supposed to draw about as hard on the faith of the Londoners, as that of "pure Orange county milk" does on the credence of our New-York neighbors.

The intelligence has been lately announced that single individuals of the celebrated breed introduced by Queen Victoria,—the Cochin China,—have been sold for more than two hundred dollars; and that Potts, the famous English breeder, actually obtained at a late sale of 120 birds, the snug sum of $3,600. "Extravagance! Insanity!" exclaim the cool-headed and phlegmatic listeners, "to pay the price of a fine horse, or of half a dozen excellent cows, for a single cock or hen!—or the value of a moderate, well improved farm, for the contents of a small poultry yard!" Equally absurd appears the anxiety with which certain marks are sought, for the purity of the breed, which perhaps attaches a value of some twenty-five or fifty dollars to a feathered leg or a lighter hue. Yet "absurd" and "insane" as this may at first glance appear, it is certainly immeasurably less so than the anxiety with which a particular sort of lap-dog has been sought, whose great merit consisted in being able to go into a quart cup, and on which dignified ladies bestowed ten times the care and nursing that they gave to their own children. This poultry madness becomes cool-headed wisdom, when compared with the time-honored custom, prevailing among aristocratic men, of placing a very high value on certain half-ounces of blood in their veins, derived from some particular ancestor, which the most acute analytic chemist could not distinguish by the slightest shades of difference from any other blood of human veins. Even in republican America, many laugh at the poultry mania and the waste of money on "feathered humbugs," who at at the same moment are riding in coaches on which extra hundreds have been lavished simply to make them glitter more brilliantly in the eyes of the gaping multitude, or who have already spent twice the amount for the flash of fine furniture or the glitter of jewels, in order to please such empty-headed mortals, as can see no beauty whatever in the infinitely more glorious sight of a morning sun flashing on a rich lanscape, glittering with the jewels just descended like a shower of diamonds from the ether above.

If men, like sheep, will follow their leaders, let it be by all means in some profitable direction, and not like the unfortunate flock who leaped after their bell-weather over the fence into the well on the other side. The cattle mania of '42, and the the Shanghai mania of '52, have both wrought great improvements in their respective departments. Nothing more rapidly disseminates improved animals through a community, than a rage to possess the finest specimens. Instead, therefore, of becoming a subject for ridicule and denunciation, the present hen fever should be regarded as the most powerful means to introduce a high standard of value and excellence in a class of animals, constituting at the present moment many millions of the wealth of the country, and affording a most wholesome and delicate luxury in country life, for both sickness and health. Infinitely would we prefer to see our wealthier improvers of farm animals lay down ten gold eagles for a beautiful bird,—capable of multiplying its superior excellence to an indefinite extent,—than to see our city neighbors waste five times that sum on a single entertainment, leaving no traces behind but headaches and dyspepsias; or to see their wives and daughters lavish a thousand dollars on a single shawl, solely to tickle the admiration of fools.

But our principal object at the present moment is to say a word to all the breeders of fowls, on the importance of extending their investigations into a field not yet sufficiently explored. They have already given by means of their beautiful exhibitions a tolerable acquaintance with the external characteristics of a score or so of breeds, including the Malays, Cochin Chinese, Shanghais, Javanese, Black Spanish, Dorkings, Hamburgs, Polands, Barn-door, Game, Bantams, and various other modifications of the *Phasianus gallvs*, the music of their "clarions" ranging through the entire diapason, from the hoarse dinner-horn drawl of the grave East Indian dignitaries, to the vigorous scream of the pugnacious Bantams. What we want now is a full set of simple, straightforward experiments to show what profits all these various sorts will afford to the ordinary farmer, over and above the two great items of cost, attendance and food. The question of the degree of profits in systematic hen-keeping is not yet settled. For, ordinarily, poultry is raised without any system at all, farmers merely allowing their fowls to do their own breeding and laying, and to pick their own living wherever they can find it among the refuse materials of the barn-yard. With the exception of an occasional scratching in a garden bed, or the inconvenience from roosting on tools and carriage seats, this mode of management may be said to cost nothing, and farmers get their usual supply of eggs and chickens without giving either food or attendance. Now, the question is, which of all the numerous breeds are best adapted to this self-management? Cannot some sort be found, or originated by crossing, that, like the Shanghais, shall be too lazy to scratch gardens, and too clumsy to ascend a carriage, and yet have industry enough to pick a living, and lay fast? Again, we want a breed that shall be just the thing for comfined poultry-yards and houses; that shall eat but little, lay profusely, and keep fat. The consumption of food for this kind of keeping is usually a large item of expense, and the fowls cannot thrive unless constant attention is given to cleanliness—these outlays, superadded to the erection of good buildings, must all be paid for by the hens' dividends, and it is very important to find out the animal that shall attend to this fiscal requisite, regularly, reliably, and promptly. Some of the East India fowls have laid one hundred eggs in one hundred days and a week; this is coming up to the work in a faithful manner, and all we want to know besides, is, the cost on the long run, which these hundreds can be afforded at. The papers furnish frequent statements of experiments, showing the high profits of hen-keeping, but in nearly all cases that we have observed, the attendance, cost of the erections, or some other formidable drawback, has not been reckoned, or has been supplied only by guesswork or vague conjecture. Who will give us a series of experiments, accompanied with incontrovertable figures? What state agricultural society will offer a liberal premium for such a series?

Analysis of Shell Marl.

The deposit of which the following examination was made, was shown to me a week or two ago, when on a professional visit in that quarter, by the gentleman on whose farm it exists, (Captain James,) near St. Andrews, Charlotte Co., and as he seemed anxious to know the manurial value which chemical analysis would give it, and as similar deposits may exist elsewhere, and other parties may want the same information, if you think so, the results are at your service as a small contribution to a too slowly advancing cause.

The locality where the bed occurs, is, I would say, judging by the eye, about one hundred feet above tide water level, in the bottom of a hollow between two rising slopes. The breadth of the bed, so far as yet ascertained, may be from forty to sixty paces, its length two to three hundred, its depth not known. This I had from the information of the owner, the ground at that time being too much frozen to admit of examining. The sample taken for analysis I dug myself, from the bottom of an open drain in the lowest part of the ground, where it is overlaid by about two feet of whitish blue, sandy spouty, clay. Captain James informed me, that it is similarly overlaid as far as he has examined, and that he has dug three feet down through the bed without reaching its bottom.

This deposite is improperly called a marl. It is simply a bed of mussel shells partially decomposed, mixed with sand and clay. The *byssus* or beards of some of the mussels are quite fresh and strong and the animal matter of the mollusca is still adherent in many of the shells converted into a sort of adipocere. On heating a small quantity in a glass tube, over a spirit lamp, it gave off a strong smell like burning horn; and on mixing with dry caustic potass and heating, it evolved very distinct fumes of ammonia, the precise amount of which I had no means at hand of determining. A sufficient quantity was powdered and thoroughly mixed to secure uniformity of composition, and a portion of this on examination gave:

	Per cent.
Adherent water in the state in which it could be dug,	22.50
Organic matter, being remains of animal portions of mollusc; having fibres about the shells, and some ammonia on its salts, ...	3.87
Carbonate of lime in the form of shells,............	17.50
Earthy phosphates and oxide of iron,....	3.42
Sand and clay,.................................	52.70
	99.99

The quantity of phosphate of lime was quite unexpected, and must have been derived from the residue of the animal part of the mollusc. The oxide of iron would be from the sand and clay, and judging from its whitish blue color turning to red on burning, was in the state of protoxide, a condition known to be adverse to vegetation, till converted by exposure to the air into peroxide. There appeared along with the lime, a small quantity of common salt, but as it was trifling, and the analysis was only intended to ascertain in a general way, the manurial value of the substance, it was not isolated.

The results of the analysis are suggestive of information, on two points. 1st, the manurial value of the deposite. 2d, the best way of using it.

1st. *Its value.* Should the whole bed be of equal composition with the sample procured, each ton as dug, would contain 86 lbs. of organic matter, rich in ammonia; 380 lbs. of carbonate of lime, equal in its power of furnishing lime to the soil to nearly two cwt. of burnt lime, and from 40 to 50 lbs. of bone earth. Its value as a means of furnishing lime in a condition available as food for plants is remote, depending upon the decomposition of the shells; its immediate fertilizing efficacy is from the other matters it contains. Taking bone-dust or guano, as measures of comparison, each ton should be equal in immediate effect to two bushels of the former, or one-half hundred weight of the latter provided the whole benefit of its fertilizing ingredients can be secured.

2d. *The mode of using it.* As the condition in which the animal matter exists is resistant of decomposition, and would require an amount of atmospheric exposure, likely to dissipate the whole of the ammonia present the most likely way to use it beneficially, would be to *dig* and *dry* it in summer, and then to remove it under cover; and having the stable and cow dung under cover also, to mix the two in about equal quantities, adding the marl from time to time, as the other manure accumulated. The heat of the fermenting manure would promote the decomposition of both the animal and earthy parts of the shells, while its being under cover, and not exposed to the air or rain, no material portion of either would be wasted. Prepared in this way, it would be a highly fertilizing and ready acting compost for any kind of crop, suitable either for drilling in for turneps, plowing in, in spring for grain crops, or spreading on the surface of grass lands as top dressing. W. A. Cuming, Veterinary Surgeon. *St. John. New-Brunswick.*

Guano and its Application.

Composition of Guano.—Prof. Way furnishes accurate analyses of eight specimens of Peruvian Guano, from which we have obtained the following mean quantities of each ingredient; and which generally do not vary greatly in each specimen:

Water, ...	14.39
Salts of ammonia and organic matter,......	47.08
Sand and Silica,........................	1.53
Phosphoric acid,........................	14.61
Sulphuric acid,.........................	3.81
Lime,..................................	11.32
Magnesia,..............................	.49
Oxide of iron,..........................	.28
Potash,................................	3.13
Soda, (very variable,)..................	1.02
Chloride of sodium, (variable,)	2.08

Only one specimen had any chloride of potassium, amounting in this instance to 2.02. The large quantity of ammonia and of phosphoric acid and lime, will be observed as most conspicuous, and which chiefly give this powerful manure its value; while the fair proportion of potash constitutes this ingredient one of considerable importance.

The *New-York Agricultor* furnishes the results of a very successful experiment with guano, as compared with marl and manure.

Farm Accounts.

No person can become a thoroughly skilful and successful farmer who does not keep accurate accounts of all his farming operations, that he may know precisely the amount of profit or loss on each of his experiments, and consequently which to adopt in his future movements. It is true, he may by shrewd guessing and a keen memory, form some estimate of the most profitable crops; but to comprehend accurately at a glance, the precise amount of expenditure through all the multifarious operations of a whole season, for even a single crop, would be almost as difficult as to undertake to decide, by means of the memory solely, the profits of a bank or railroad, and to divide the proceeds by guessing, among the stockholders.

A most favorable period occurs at the present moment, at the opening of the spring work, for those who have hitherto neglected this guiding index to success, for its thorough adoption. We have been lately favored with a glance at the register of farming operations kept by Joseph Watson, of Clyde, N. Y., who, with a farm of only fifty acres, is well known to be one of the best cultivators in the state. We furnish a brief abstract, both as a good and simple form for such accounts, and for showing the large profits which may be derived from a small farm, when managed with skill and accuracy. It will be observed that this farm possesses none of the *peculiar* advantages of nearness to city markets, which some have, and of which high profits have been reported, on account of the sales of milk, vegetables, early fruit, &c., often serving to make up wholly their superiority over ordinary specimens of management.

At the beginning of his book is a map of the farm, with its subdivisions numbered, and the area of each designated. With each of these fields an account is opened, containing a double column for charges and credits, of which the following is a specimen:—

Lot or field No. 10,—4 *acres reclaimed marsh.*	Dr.		Cr.	
1852.				
May 27—To 4 days plowing into ridges for corn, being new. low, and wet,.	4	00		
To 4½ days planting corn, potatoes, beans, and carrots, 75c.,	3	37		
To corn seed, 60c; 4 bu. potatoes, $3,	3	60		
June 22—To 5 days hoeing, 62½c.; 2 days with shovel plow, $1,	5	13		
July 8—To 1 day shovel plow, 4 days hoeing,	3	50		
Oct. 14—To husking 230 bu. ears corn, various parts of days, 3c. per bushel,	6	90		
By 230 bu. ears of corn, 25c,			57	50
Oct. 19—To digging potatoes 2 days,	1	50		
By 68 bu. potatoes, 25c,			17	00
" 6 bu. carrots, 25c,			1	50
" 2½ bu beans, $2,			5	00
To pulling and drawing carrots and beans, and threshing beans,		50		
To drawing 6 loads stalks, worth $2 per load,	1	50	12	
Oct. 30—To drawing 6 loads pumpkins, worth $1 each,	1	00	6	
	31	00	99	00
Net profit for 4 acres, or $17 per acre,	68	00		
	99	00	99	00
Carried to balance account	..	..	68	00

More minuteness in designating the quantity of land devoted to the separate crops, and separating the amount of labor devoted to each, would make the record more valuable by showing the relative profits. The balance from each field is carried to the general *balance account*, which exhibits in a summary form, the profits of the whole farm. The following is the summary for 1852—and includes the report of the *unsuccessful* as well as the *successfull* operations; or in other words, is a faithful transcript of the whole yearly management:—

		Dr. Am't. Cr.				Dr. Bal. Cr.			
	No. acres.	Exp.		Pro.					
Lot No. 1—Oats, &c.,	1½	9	..	19	66			10	66
" 2—Hoed crops and fruit,	1¼	17	75	66	75			49	00
" 3—Meadow & orchard,	3½	12	75	79	25			66	50
" 4—Sheep pasture,	1			5	00			5	00
" 5—Wheat,	8	87	67	259	75			172	08
" 6—Corn and roots,	3½	55	42	174	26			118	84
" 7—Meadow,	7	16	75	110	00			93	25
" 8, 9, 11—Pasture & wood,	15½								
Profit on stock,								145	00
" 10—Corn, &c.,	4	31	00	99	00			68	00
Poultry,		37	44	68	45			31	01
Sheep,		39	25	46	07			6	82
Swine,		55	60	84	60			29	
Farm implements, (paid for new ones)		..	..	..	..	81	38		
Farm improvements, (tile draining, &c.,)		..	..	..	..	110	50		
Family expenses,		..	..	..	..	140	99		
Incidental expenses and taxes,		..	..	..	..	62	81		
Balance carried down,						399	48		
						795	16	795	16
Nett proceeds of 45 acres, above all expenditures,								399	48

It will be seen by the above account that the actual nett profits of each field, as they are usually reported, (that is, without reckoning the family expenses, farm improvements, taxes, &c.,) is nearly eight hundred dollars—a very large amount for a fifty acre farm—the correctness of which we do not doubt, as we have had an opportunity of examining personally the whole of the premises.

Farmers who have not kept well arranged farm records, may procure a small quarto blank book for fifty cents or less, ruled as above; every right-hand page may be devoted to each field, or branch of farming; and the left hand facing page, to remarks. These remarks, made in season, while the subject is fresh in the farmer's mind, will form an excellent memorandum book of operations for the next year, so that errors may be avoided and successful courses repeated, and in the course of a few years such a degree of experience attained in balancing profits and losses, as shall enable any careful and industrious landowner to reach the highest successful results.

Sheep Killed by Dogs.

We have been furnished, by W. D. Barnes, of Newburgh, a copy of a proposed law, to prevent the heavy losses which sheep-owners now occasionally suffer from the assaults of dogs. He says that a prominent cause of the diminished number of sheep in the Eastern States, is the danger of their destruction by dogs—and that in the neighborhood of villages, keeping sheep without a shepherd in constant attendance, is accompanied with great risk. The evil is the more serious, from the fact that small flocks of sheep, in connection with other branches of agriculture, prove to be a most profitable investment, but for this drawback.

The proposed law, intended at present for Orange county only, but believed by our correspondent, to promise great usefulness in other parts of the State, contains the following provisions, which we present in a condensed form: Each Town clerk has a blank book, in which every dog-owner shall annually register a correct description of his dog, paying at the same time one dollar for each dog, and five dolars for each bitch—for which he receives a certificate from the clerk. The clerk pays the money to the supervisor, retaining ten per cent as fees. All dogs not registered thus, are noted by the assessor, and the board of assessors designate a justice, who is to fine every owner five dollars for each unregistered dog, besides cost of prosecution, and every man meeting such dogs off their owners' premises, may slay them. When any sheep are killed, the owner may testify to the identity of the offending dog, but not to the amount of damages, and the dog-owner is liable for the amount. But if the dog is not identified, the loss is to be paid for out of the dog-fund, and if this is insufficient, the demand becomes a town charge. This is the substance of the law.

The amount of property in sheep destroyed annually by dogs throughout the Union, is enormous. It is strange that so many State legislatures refuse the most stringent enactment against this murderous assault on the agricultural enterprise and prosperity of the country. In some of the western States, where these losses appear to have been most severe, agricultural editors have stated, that the best way to prevent the robberies of *wolves*, is to bait them with *strychnine*—and if the dogs choose to eat this bait, that is *their* look out.

◆

Culture of Hops—No. 3.

Baleing Hops.—After our hops are cured, we have but one thing left to do with them, and that is, to put them in bales of good shape, to contain as near as may be about 200 pounds each.

The process of baleing hops is quite simple. The hops are let down into a strong curb or box of the required size, (generally about 4½ feet in length, by 4 feet in height, and 17 inches in width,) a piece of baleing cloth first being laid on the bottom of the curb, of the right length for the bale; two men enter the curb and tread the hops as they are let down, until it is full. Another piece of cloth is then laid on the top of the hops, a follower put on and pressed down with a screw, (fixed for the purpose in a press similar to a cider press,) till the two edges of the cloth will meet. The curb (being constructed for the purpose,) is then taken apart, the screw holding the hops to their place; the edges of the cloth are lapped together, and secured completely round the bale. After it is sewed, the screw is taken up, the bale taken out, the ends cased, and it is finished.

Expense of Growing Hops.—As the cost of growing hops varies with almost every individual who raises them, owing to different mangement, and good or bad cutivation, it may be difficult to answer with a degree of satisfaction, what it costs to cultivate an acre of hops annually, or to produce one thousand pounds of the article. But it may be assumed as a fact, that to grow them successfully is expensive business, and it is a commodity requiring, perhaps, more outlay than any other produced by the farmer. The expense of starting a good hop-yard, (by which is meant procuring poles, building kiln, preparing ground, and other necessary fixtures,) will of course vary in different localities, as poles, building materials, &c., can be obtained. Here, poles are becoming scarce, and good ones dear; cedar now selling at nine to ten dollars per hundred. I think it may be safely stated that the cost per acre would not be far from $150 to $200 dollars. The annual cultivation, also, is both laborious and expensive; and to him who wishes to profit by their cultivation, I would say, you cannot well bestow too much labor or pains upon them. Anything else will pay as well for starved culture as hops. They will not pay for it.

Hop-yards have been rented for cultivation within the knowledge of the writer, at an annual cost of $6½ to $7 per hundred pounds of hops, delivered in bales ready for market. The lessor furnishing manure for the yard, and fuel for drying, &c. The lessee doing all labor. But this, I think, could not now be done, as the price of labor is much higher now than it was then.

From accounts carefully kept, of labor and money expended in cultivating my own yard, (to say nothing of the use of land, interest on cost of poles, annual loss by wear, &c., of the same, and board of hands,) I cannot put the account with a fair yield, at a less sum than eight cents per pound.

Average Yield.—As before observed, the yield of hops is generally in proportion to labor bestowed in cultivation and manure applied, soil, and other things being about equal, and it takes the wide range of 400 to 2,000 pounds per acre. There are a few acres of hops that produce even more than one ton per acre, with extra cultivation; but far more that do not yield 1,000 lbs. And the general average, I have no doubt, would fall below this last amount. A good average yield would be about a pound to the pole.

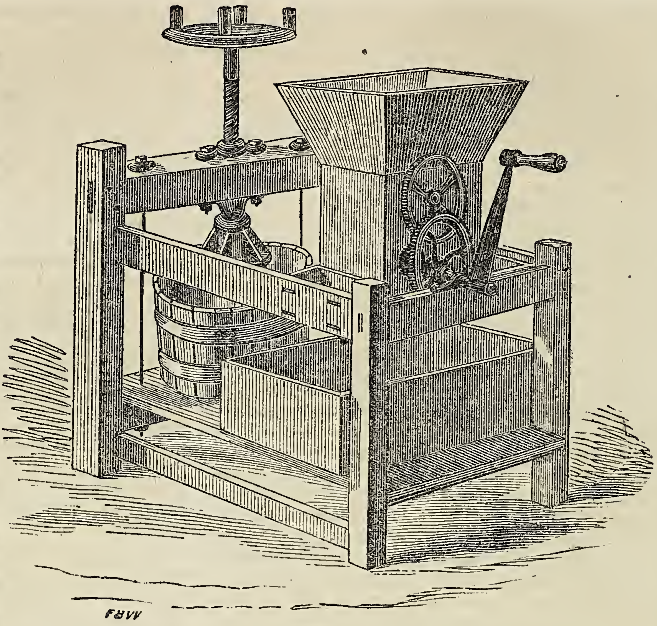
General Remarks.—The hop crop is of all others the most uncertain and fluctuating, both as to production and price, with which the farmer has to deal. Nothing certain, either with regard to the crop, or the price it will bring, can be calculated upon. It is a crop liable to injury or destruction from several causes, and do they operate either separately or combinedly, will prove about equally fatal. The grub gnawing at the root, the fly preying upon the vine, or rust, blight, mildew, or hail, here, each and all in their turn, have spoiled the most flourishing yards.

The price also occupies a wide range, and often fluctuates rapidly, so that it is always difficult to know just when to dispose of a crop. And if we resort to contracts for a term of years, we are only safe so long as hops are as high in market as the contract price. For so soon as they fall a little below, contractors will fail, or by some trickery or other, try to get released, or get some interested friend to swear our hops are only third or fourth in quality.

I have thus given the process of growing this important crop, from the time of setting the roots in the ground, till the hops are delivered in bales ready for market. A few minor points have been passed over, fearing I might occupy more of the valuable space of your paper than would be acceptable to yourself or your readers.

What has been written is simply a plain statement of facts derived from experience, and, in answer to your request for the same, without in the slightest degree wishing to influence any, to or from engaging in this enterprise. An Otsego Hop Grower.

Portable Cider Mill.



The accompanying figure represents a compact and effective machine, the whole being contained in one frame, three and a half by four feet, and four feet high, and weighing only one hundred and fifty pounds. The machine can be worked by hand to grind forty bushels of apples in an hour, in a superior manner. The grinding apparatus consists of two cylinders, about six inches in diameter, and fourteen in length, one set with horizontal teeth, and running one-third slower than the other, upon which the teeth are set spirally. By this contrivance, the apples are prevented from crowding too fast into the cylinders, and are completely rasped instead of crushed.—When the box is full, it is emptied into a tub, and immediately pressed. The press is a square cut iron-screw, which completely expresses the juice in a very short time. The press can be used by hand or horse power. Price $40. For sale by Longett & Griffing, 25 Cliff-street, New-York.

Indian Corn.

Mr. Tucker—My experiments with Indian corn the past season, have not been as successful as formerly, owing to numerous causes. There was not sufficient rain to moisten the corn hills in three weeks after they were planted, to cause the seed to sprout, and the result was, a few spears where the seed happened to be in the crevices between sods, came up and grew finely; in one instance I measured a spear in a hill that had grown ten inches, while three others, planted at the same time, in the same hill, were just springing out of the ground.

This difficulty prevailed to a great extent in this section of country, causing an unequal ripening in the fall, and an unusual degree of anxiety among farmers as to the exact time for cutting. It is expected that frost will make its appearance here soon after the tenth of September, and whoever allows his corn to stand later than this, cannot but feel some anxiety about it. The past season has been an exception to the rule, as frost did not kill pumpkin vines until the 12th of October. My corn was cut from the 20th to the 25th of September; some hills over ripe, and very many that had not done growing—still I dare not wait longer. To carry out an experiment that has been commenced with a view to continuing it ten years—25 hills were left to ripen as they grew, the same number were topped, and an equal number were cut up and put in stout. A large flock of turkeys visited the field daily, and paid no more regard to my remonstrances than the nightingale did to the eloquent appeal of the glow worm; the result, as might be expected, on attempting to husk and weigh the corn, was anything but satisfactory; some hills were stripped entirely, others partially, and that put in stout was badly torn to peices.

The conclusion to which I arrived, finally, was that the the 25 hills left standing produced about five pounds more than either of the others, entirely reversing my experiment of last year.

Frequent visits to the corn after the rest was cut, convinced me that a great mistake had been made by cutting too soon, as this actually grew and filled out up to the time of frost, on the 12th of October. By this statement it is hoped no one may be deceived into a belief that it is best to leave corn as late in ordinary seasons, for it should be borne in mind that this did not get started to growing until late in the season. It was planted on the 19th and 20th of May, and not one grain in a thousand came up until the 15th of June.

The experiment in relation to the relative value of seed from different parts of the ear had all the difficulties of the above to encounter, and of course cannot be considered as amounting to a great deal; it is thought best to give it, (as near as may be,) to show that the experiments are being continued. Twenty hills of each were planted, and some destroyed while young:

Large end	of ear	19	hills grew;	corn weighed	18 lbs. 8 oz.
Middle	do	20	do	do	20 lbs.
Small	do	18½	do	do	19 lbs.

It will be seen that the seed ends produce a fraction more than either of the others, according to the number of hills that matured, and that the middle produced a trifle more than the large end. I regret the inaccuracy of these experiments, but derive a little consolation from the fact that the causes were beyond my control.

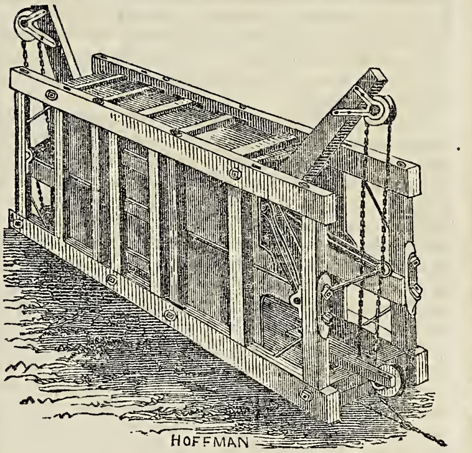
An agricultural club was organised in this town in the early part of the past winter, which has enabled the neighboring farmers to spend a few evenings in an agreeable and instructive manner. Following the suggestions of a former number of the Cultivator, they passed resolutions at the close of each discussion, and it sometimes happened that the best part of the discussion was on the question of adopting such resolutions. One of the best features of this club is, that at its close, which will probably be when the working season commences, there is to be a regular set of rules laid down, under which each member is to make experiments upon the various grains, grasses, and roots, and report the result to an adjourned meeting of the club after the working season shall have closed, thus enabling us to compare the results of the same kind of manure upon the same kinds of crops, on different soils. Geo. W. Coffin. *Amenia, Dutchess Co., March* 7, 1853.

Practical Farming.

Mr. Tucker—Having read so much of late on agricultural chemistry, scientific farming, artificial manures, &c., and believing that practical agriculture will be of more benefit to farmers in general, than thousands of theoretical speeches or volumes on scientific farming, I venture to give, or at least try to give, you a chapter or two on thorough experience, and will confine myself to farming, as I believe it ought to be carried out, on lands that have been forty years and upwards under a severe system of cropping; and will endeavor to point out the most economical mode of renovating these worn lands; and also the way to keep them profitable after they are improved.

In the first place all wet lands ought to be drained, and that now can be done at a reasonable rate in the counties adjoining this, say for 30 cents per rod, or perhaps a little less, where tile can be obtained conveniently. Without draining, manure has no effect, and by a long course of tillage, the subsoil has become so compact, that almost the whole country around here has become too wet for profitable cultivation, and must either be thoroughly under-drained, or otherwise Western New-York will be no longer the wheat-growing country that it has been. Yet by draining, and other good management, it is altogether probable that the lands here may be made as profitable as ever, or even more so, since we have so many more facilities for carrying stock and other products to market, and improved implements of husbandry, &c.

After thorough draining, all worn out lands, (but land much wet cannot be worn out, as it won't produce crops enough to wear it out,) should be seeded to grass and clover as soon as practicable, and sown with plaster, (gypsum) at the rate of one bushel per acre, which costs here 12½ cents. I cut for hay the season after the seed is sown; it ought not to be pastured in the fall, but have another bushel of plaster to the acre, and left over winter with a good covering of grass. In this way the land will be greatly enriched, and it will give good pasture in spring, some eight or ten days earlier than land otherwise treated; but care should be taken not to overstock the land. Let it have always a good covering of grass. Much better to keep six cattle to gain 1,800 lbs. in six months, than eighteen cattle to gain 1,800 lbs. in same time. The former will be prime beef, and bring the highest price; the latter, poor beef, and perhaps not bringing so much as the former by $1.50 to $2 per 100 lbs. The land will be greatly enriched by the light stock, and but little where all the grass is eat off close to the ground. Keep the land in grass, pasturing light, and the stock will pay well, and in two years the land will be ready to bring two crops of grain, and probably as good as ever it did. John Johnston. *Near Geneva, 14th March*, 1853.



Emery's Portable Hay Press.

The above cut represents the external view of H. L .Emery's Portable Hay and Cotton Press. As seen in the cut, it is closed up, and about midway in process of pressing a bundle of hay. When fully pressed, the ends of the levers which are seen at each end extending above the box, are brought down by the chains and shelves until the levers themselves are in a horizontal position.

The press is provided with two followers, both working from the ends towards the center, and each other. The chains or ropes from the levers are connected by passing one of them under the press, and joining in a larger chain or rope; this larger one connected with a capstan, or blocks and ropes, as is preferred, or most convenient.

When the press is driven home, the hay becomes pressed into a bundle, standing on end; the side doors are thrown open, while the bands are pressed round the bundle and secured; when the followers and top doors are loosened, and the bundle thrown out. For operation, the levers are raised and followers drawn back, and the top opened by means of two doors, which are buttoned down in the center by a crossbar, as seen in the cut. The opening on the top for receiving the hay, being two feet wide and eight feet long. The press stands on the ground or floor when in use, which makes it both convenient and capacious for filling and treading in the hay.

The whole press is fourteen feet lohg, two feet ten inches wide, and four feet ten inches high, outside measurement; weighs about twelve to sixteen hundred pounds, and is capable of compressing two hundred and fifty pounds of timothy hay into sixteen cubic feet, at the rate of five bundles per hour, with two men and one horse; and heavier bales in proportion, as to size and time. *Price complete with chains and capstan, is* $135, and warranted to give satisfaction.

Profitable Farming.

In a recent number of your paper, I saw a statement of John Laurie, an English farmer. You call him an amateur farmer; we would only call him one of our good farmers, as some I have known have done still better. It all, as you remark, arises from high cultivation and intelligence, with liberal outlay, without a due portion of which a farmer can never make a good profit. Some are, I am well aware, of opinion, and say, "oh! it never will pay;" but let them just try and they will find out their mistake. To half till and not manure land, is only throwing away time and impoverishing the soil.

I have traveled a good deal through different counties this winter, in a fine region of country, and was sorry to see every farmer I called on, remain and live satisfied with the old system. Not a single barn-yard could show a pile of manure, or any neatness or regularity. The two latter may seem to many not necessary; but without their being observed, there is often a waste of time and labor. It costs far more to be slovenly, than to be neat and regular in putting away implements, &c.

As to manure, this is by very many, I am sorry to say, sadly neglected, and believe me it is the farmer's friend. Unless we give it to the soil, we cant expect a due return from it. I have made a pile of manure since last spring, from the following stock: 10 head of horned cattle, 4 horses, 20 sheep, and some 10 or 12 hogs. The pile is now 45 feet long, 16 feet wide, and eight feet high. In this is only 12 loads of compost, brought in to soak up the overflow of liquid in the fall. Some may say, how was it done? I will answer; I did it by care, diligence, and a due attention to it, taking always favorable opportunities, such as wet days, for the purpose of piling and putting it together.

In my travels this winter, I made some inquiry as to draining, which is also sadly neglected by too many. It is folly to expect a good return from land in a wet condition, either meadow, pasture, or any kind of green or white crop. I have not seen a great deal of real thorough draining done since I came to this country, and irrigation to very many is little known. Now I should strongly recommend every farmer that has the means, to drain his farm thoroughly, which is done by having drains 18 to 20 feet apart, and 2½ feet deep, with tile. Then irrigate both meadow and pasture land, where it can be done, and depend on it, farms wont require so much artificial manure. I have experienced the good results of irrigation, and advise strongly its being tried. On this branch, I could say a good deal, and give strong proofs of its value, but time does not permit. Believe me, it is from care in this way, and a proper knowledge of farming, that Mr. Laurie makes his land pay as it does; and I confess I see no reason why faremers here, should not do as well as in England. They have cheap and good land, and more settled seasons for the benefit of their crops. I know labor is high, but let it be turned to good account, and it will tell for itself.

Another important thing in a barn-yard, is a tank to receive all the overflow of liquor from the pile, and the draining of the yard. In expense of making, one would pay for itself in one year easily. Let any farmer that never tried it, apply a little to one of his meadows, and he will find its good effects. In England and Scotland, farmers have carts, such as we use for watering our streets, for taking this liquid from the barn-yard to the meadow, field and pasture; and when a farmer can make and have the means of improving his land, and filling his purse within his own reach at home, why need he lay out his money in buying artificial or other manures. I don't, for a single moment, mean to do away with these manures; they are all useful and good, but we often see better at home, neglected. Wishing all our farmers to make bold and rapid strides, and not alone compete with, but try to excel, England and Scotland, I am yours respectfully, A CULTIVATOR OF THE SOIL. *Oswego, N. Y., March* 19, 1853.

Roofings for Buildings.

The Prairie Farmer gives the following, as the relative cost of several different modes of covering roofs, after the boards are laid in readiness, which may be useful to those about planning erections:—

Shingles,.........	3	cents per	square foot.
Pitch and gravel,..	4½	"	"
Tin,........	10 to 11	"	"
Zinc,.......	16 to 17	"	"
Iron,.......	15 to 16	"	"

Tin and Pitch are always used for flat roofs, and consequently fewer feet of roofing are required when these are used, for buildings of equal area. The great advantage of tin, as our readers may well know, is its perfection and durability, rendering it about as cheap in the eastern States, where shingles are more costly than above given, as this more perishable covering, in the long run. The use of pitch and gravel is rapidly increasing, from its cheapness, proof against rain, and reputed safety against fire. This covering is applied with great rapidity, in the following manner:—The boards are first covered with thick felt paper, manufactured for the purpose, over which a hot mixture of tar and pitch is applied with a mop. Immediately as much clear gravel is spread over this as will lie, having been previously dried in large pans. It is not recommended for steep roofs, nor even those of "one quarter pitch" only.

No roof can be regarded as a cheap one, which ever leaks in the least degree, as the amount of decay this occasions in a few years, will cause a greater loss than the most costly roof.

TO MAKE VINEGAR FROM BEETS.—Grate the washed beets, express the juice in a cheese press, and put the liquor in an empty barrel; cover the bung-hole with gauze, and place it in the sun. In a few weeks the vinegar will be good. It is said one bushel of sugar beets will make five or six gallons of vinegar, which is probably nearly correct, as nine-tenths of the substance of the beet is liquid, and each bushel of roots contains about equal to six gallons in measure, omitting the interstices.

POTATO SOUP.—Almost every farmer's household is fond of soup for supper. I will now write a few "homespun" lines on making a cheap and palatable soup from the potato. I take good sound potatoes, peel and cut them in pieces small enough to be eaten with a spoon. After having them well rinsed, I boil them with enough water to leave them in a state of soup, adding salt to my taste. When they are cooked, I take about two table spoonsful of flour, with half as much lard, and fry it in a pan, stirring it with a spoon until changed to a brown (not black) color. I then stir it in with the potatoes, after which it is ready for the table. ELIZABETH DIEHL.

Condensed Correspondence.

The Yam Potato.—We have a communication from Lotan Smith, Esq., of Liberty, Sullivan co., N. Y., who has taken much pains, for some years past, to disseminate this potato. He considers it the most productive, one of the best keepers, and one of the best for culinary purposes, as well as less liable to disease; the greatest objection to it being its color, it being black externally, and purple internally. He says—"I raised 535 bushels, last season, on one acre and 64 rods of ground. The land was gravelly loam, and had lain in meadow for about five years. About fifteen loads of manure per acre, were spread on the land, and turned under seven or eight inches deep—then harrowed, and planted on the top of the sod, in rows four feet apart, and from 18 to 24 inches apart in the row. Had the rows been 3½ feet apart, and the drills 16 to 18 inches, I think I should have had near 600 bushels per acre. The only culture they received, was the running of two furrows between the rows, and levelling the earth around the hill by the hoe. Dr. P. Crispell, Jr., of Ulster co., raised 554 bushels of Yams last season, on one and 17-100 acres of land, for which he was awarded the first premium of the State Ag. Society." Any person wishing to try the Yams, can procure them, by addressing Mr. Smith, as above—price $2,50 per barrel, delivered at the New-York and Erie railroad.

A Profitable Cow.—I give below, the product for one year, of a cow owned by the late Warren Cone, Esq., of this town. The account was most accurately kept.

345 lbs. of butter, at 16⅔ cents, ...	$57 50
Calf sold, ...	2 25
Milk sold and used, ...	12 00
	$71 75
Cost of keeping cow, ...	31 00
	$40 75

The amount of butter will be noticed as remarkable; and if butter had been made from all the milk, it would not have been less than 400 lbs. The actual quantity made in one year, is larger than I remember to have seen recorded in your Journal, except in two or three instances.

The cow was one-half of the Native breed, and one-half a mixture of Short Horn and Ayrshire. The mother, a Native cow, was supposed to have been as extraordinary for milk, but her yearly product was never ascertained. Robbins Battell. *Norfolk, Conn., March* 30, 1853.

Heavy Carcasses.—Mr. Septimus Loomer, of Columbia, Tolland county, Conn., slaughtered a bull in January last, 2 years and 10 months old, a cross of the Ayrshire with the native breed, which was raised by himself, and which weighed when dressed, 1,566 pounds.

Mr. Martin Webber, about the same time, butchered a hog, 18 months old, which weighed when dressed, 625 pounds. John S. Yeomans. *Columbia, Conn.*

Preparation of Seed Corn.—Corn planting season will soon be here, and I wish some of your readers would try the experiment of soaking their planting corn, in a strong infusion of tobacco, and report in the Cultivator. Last summer, I had two fields of corn to plant, one of which was near the woods. Thinking that the birds might pull up the corn, I concluded to soak it in an infusion of tobacco. I took half a pound of smoking tobacco, added sufficient boiling water to cover one bushel of shelled corn; I let the water remain on the tobacco, until it had cooled down to lukewarmness; then strained the tobacco out of the water, and poured it over the corn in a tub, and left the corn to soak 24 hours before planting. The corn was planted on 2d of June; it soon came up, and the birds, ground moles, cut-worms, &c., refused to touch it. On the 10th of June, I planted the other field, which was at least 400 yards from the woods, with corn soaked in warm water. About a fourth part of some of the rows of corn in this field, was destroyed by the ground moles and the cut-worms, and birds also destroyed a considerable quantity throughout the field. If tobacco obviates these difficulties, the remedy is easily applied. F. B. Poley. *Skippackville, Pa., March* 24, 1853.

Buggy Peas.—In this and many other sections of the State, we are troubled with buggy peas. A few years ago, I sowed a field of peas, in part with seed of the previous year, and in part with seed two years old. They were of the same kind, and sown the same day, and were sown along side of each other. The product of the new peas was very buggy, while in that from the old, I scarcely found a bug. The next year, I had no old seed, and used seed of the previous year. The result was, a crop of buggy peas. I kept some of the same seed over the second winter, and sowed it the third year. The result a good crop, almost entirely free from bugs, while fresh seed the same season, produced very buggy peas as before. O. F. Marshal. *Wheeler, N. Y.*

Ashes and Plaster for Potatoes.—I have often seen ashes and plaster recommended as a fertilizer for the potato. I send you the following experiment. I planted nine rows (Mercers,) the latter part of April, and dug them the last week in September. The land is a sandy loam, and was limed the year before, at the rate of 50 bushels to the acre.

Row No. 1	—no manure,	yielded	60 lbs.
2	—ashes,	do	56½
3	—plaster,	do	50
4	—no manure,	do	80
5	—ashes,	do	68
6	—plaster,	do	67
7	—no manure,	do	95½
8	—ashes,	do	67
9	—plaster,	do	66½
No manure, 3 rows,		....	235½
Ashes, 3 rows,		....	191½
Plaster, 3 rows,		....	189½

A. T. James. *New-Rochelle, Westchester Co.*

Preparation of Seed Corn.—I have made frequent experiments in preparing seed corn, without success, except one made last spring. I took soft soap, put some in a kettle, warmed it over the fire, put in the seed corn, and gave it a good stirring, adding as much plaster as would adhere to the corn. The corn came up good and quick, and looked vigorous and healthy. The alkali in the soap is a strong fertilizer. The wire worms did not disturb that planted with the seed soaped—that part not soaped, was injured more or less by the worms. Lest some should attribute the manifest difference between the soaped and unsoaped seed, to the plaster, I took some thick molasses, put a few quarts of seed in a kettle, as above stated; there was as much plaster attached to this seed as to that soaped. The greater part of the field was planted with seed in its natural state. The soaped seed came up the quickest and best. Will others try the experiment. O. F. Marshal. *Wheeler, N. Y., Feb. 28th,* 1853.

Culture of Onions.—The soil on which I grow them is what is called clay or rather stiff. I plow the land in the fall, and spread on a good coat of manure, to lay till spring. As early as the ground will permit in the spring, I plow and drag it thoroughly. I then rake it off with a hand-rake, and make my drills fifteen inches apart, and plant my seeds six inches apart in the drills, putting in from five to eight in each hill—I then sow ashes broadcast till the ground looks light. This I think tends to keep off the worms. As soon as the plants are up, so that I can see the rows, I hoe them out clean. At the second hoeing, I thin out the plants in the hill to four or five. In this way, I have always had good crops. I procure my seed of C. F. Crossman, Rochester, and it is always good, and we use half red and half yellow, mixed. It is as easy to raise good onions as potatoes. Horace Benjamin. *West Bloomfield, N.*

Answers to Inquiries.

QUANTITY OF MANURE FROM GRAIN.—I am well satisfied if we wish to keep up the fertility of our farms, we must not only feed our hay, straw and corn fodder, but our grain also; and that grain must pass through the body of animals. And now, will you be so good as to tell me, if fifty bushels of corn will be of equal value if fed to a horse, hog, or to neat cattle, for manure; if not, which should have the preference. Respectfully, NORMAN LITTLE. *Columbia, Conn., March,* 1853.

We do not at present recollect any decisive experiment on this subject. It is one of rather complex solution, so far as it is applicable to the general economy of farming. For, in the first place, the value of the manure is to be taken into account; secondly, the value in nourishment imparted to the animal; and thirdly, whether other and cheaper food is consumed by the animal to any considerable amount, in connection with the grain. For example, a landpike may retain, assimilate and convert to flesh, one-half of the elements of corn; a Berkshire three-fourths; the landpike will of course yield the most manure from the fifty bushels of corn, yet be by far the most unprofitable animal on account of the little pork he manufactures. A cow or a horse may assimilate and convert to flesh, a smaller portion of the corn than the hog, and yet afford more profit by consuming a much larger portion of such cheap food as hay, straw, or corn-stalks, furnishing the same elements, both of flesh and manure, at less price than the hog that eats corn alone. Still another consideration is the fineness of pulverization to which the fodder and grain is reduced in the manufacture of manure, which would of course render it more available and valuable to growing plants, than if left coarse or unbroken. All these circumstances are to be taken into account in a series of experiments performed to settle this complex question.

SUPERPHOSPHATE OF LIME.—Has the experience of 1852, demonstrated the valuable qualities of Superphosphate of Lime, either from bones, or from that obtained at Crown Point ? If so, can you refer me to it, or if not, can you give me the particulars, so that an estimate of its value and for what crops, can be formed understandingly.

Another thing, can you inform me which of the sorts I had better buy, if at all. That of Professor Mapes, or that advertised by Mr. DeBurgh ? The truth of it is, I do not like either of the sources very much. The first, has lent himself to a humbug in that "Stowell Evergreen Corn," and I am bound, in conscience, to say, that the reading of the other's advertisement has filled me with doubts, rather than inspired confidence, by its quackish tone.

If you can relieve this, by a better knowledge of them, or refer me to a source to which they would not attach and worthy of confidence, you will greatly oblige me. C. D. P. *Waterville, N. Y.*

We are sorry to have to say, that we cannot afford our correspondent any satisfaction on the points about which he inquires. That great quantities of the Superphosphate of Lime, manufactured by "Professor" Mapes, and by Mr. DeBurgh, were sold last year, we have been told, and have no reason to doubt the fact. But of its efficacy—the crops for which it was used, &c., we know nothing. Will not some one of those who have used it, furnish us with the particulars and the results?

The analyses published in the 9th No. of this paper, show that the samples, both of Mapes and DeBurgh, compare well with those manufactured in England; and Mr. Deburgh assures us that his shall, hereafter, fully equal the best made; but what we need to know is, whether the superphosphates have proved as beneficial in this country as in England; and if so, the best method of using them, and the crops for which they have proved most beneficial.

ABORTION IN COWS.—*A. B.* See article in the 7th No. of the Country Gentleman, or in the March No. of the Cultivator, in answer to a similar inquiry. The disease, if such it may be called, was very prevalent in various parts of the country, some eight or ten years since. It passed through a large herd of high bred cows, owned by a friend of ours in this vicinity; and he had to separate them, by sending them to different parts of the country, before the difficulty was removed.

CRANBERRY PLANTS.—Will you please furnish the address of some person to whom I can apply for cranberry plants, as I am disposed to try the experiment of cultivating them upon upland. G. H.

They can be had of F. TROWBRIDGE, New-Haven, Connecticut.

SPRING WHEAT AND CARROTS.—I wish to put in some spring wheat upon a hill, that I cannot get manure to. What is the cheapest and best stimulus for me to apply to it? The land is quite strong, and very good for wheat. I also wish to plant a piece of land, which is somewhat bushy, and of a coarse loamy gravel soil, to carrots. What is the best stimulous for them? J. F. H. *Catharine, N. Y.*

If, as we infer, our correspondent cannot manure his hill on account of its being inaccessible for teams, then he may carry up bags of guano on horseback, and apply it as directed in former numbers of this journal.

A coarse gravel is often termed a *hungry* soil, because it requires more manure for rendering it fertile than other soils. This is owing to two causes—the want of a sufficiency of clay or loam to absorb and retain the fertilizing portions of the manure, and the rapidity with which water passes downwards through its porous substance, carrying away quickly the soluble portions. The best remedy for this evil, is to apply the manure in the form of *compost,* made by mixing yard manure with double its bulk or more of loam, turf, and fence-corner cleanings. This, if it has lain some months, and been worked over, (which is most easily effected by the plow and harrow attached to oxen,) will become thorougly impregnated with the manure, and will retain in the soil the fertility imparted.

HYDRAULIC RAM.—Through your valuable paper, will you inform me, what will be the cost of a Hydraulick Ram, with pipe 3-4 inch bore, to carry water one hundred feet, and elevate it twenty feet; with the same kind of pipe to carry it three or four hundred feet, and elevate the water one or two hundred feet. Also where they can be obtained. A SUBSCRIBER. *Fayette Co., Pa., March 4th,* 1853.

Your fall is not given, nor quantity of water in fountain or required for use. With a fall of four to eight feet, you should have a Ram worth $18, and have a drive-pipe 5-8 inch bore. The drive-pipe should weigh four pounds per foot, and leading pipe one and a half pounds per foot. Price or pipe 6 1-4 to 7 cents per pound. This will supply 100 head of cattle, with twenty feet elevation, if you can supply the one and a half inch pipe with water. The machines and pipe can be had at nearly all agricultural warehouses.

ROSENDALE CEMENT.—G. R. Gates, asks, What is Rosendale Cement?" It is "hydraulic lime, a species of lime which, when formed into mortar, hardens in water; used for cementing under water."—[Journal of Science.]

It is proper for making hard floors for cellars, or pointing up cellar walls. It is the cheapest and best article for such purposes. It is to be prepared for use by mixing two parts cement with three parts sharp, clean sand, adding water to make it mortar. The surface or bottom of the cellar must be levelled and smoothed, and four inches of pounded stone laid on the bottom. Then a grout should be made of one part cement and two parts sand, as above; water to be added until it is just thick enough to run and fill all the crevices; let it stand to set; then take mortar made as directed above, and plaster over the grout and stone smooth, until it becomes hard and solid, and you will have a floor to stand water as long as time. As to the expense per square yard, I am unable to say. Thus much I know, that I always preferred cement floors for cheapness and durability, to any other. I do not deal in the article myself, but I have had it used in large quantities for over twenty years, under my charge. Cement can be got here for one dollar per barrel of 300 lbs. It is proof against rats and mice. I have a cellar and basement which has been under water some time without injury. In fact all cellar walls ought to be laid in cement mortar. It will pay in the end. William Grant. *Rosendale, Ulster Co., N. Y.*

Tumors on Animals.—J. H. Bryan inquires in regard to a bunch on a cow's udder. I have a horse, that some three years since, had a bunch on his neck, about an inch in diameter; that I cut off by tying a string around the neck of it, but it grew again, in a very short time, to be one-third larger than before: I then applied Nitric acid to it, at intervals of two or three days, and in a very short time it entirely disappeared, and has never troubled him since. E. S. Lewis. *Bristol, Conn., March* 11, 1853.

Hop Culture.—In answer to the inquiries of L. T. S., "if at the time of grubbing hops in the spring, any soil ought to be removed from the top of the hills. Also, whether the old root from which the vine sprung the previous year, should be permitted to remain or should be cut off." I would say, it is hardly possible to grub a hill of hops effectually without removing most of its covering. And this should be done, leaving the top of the bed-root nearly or quite exposed. The condition of the main root can then be seen, and if it is sound, cut off the old stump-like root from which the vine sprung, close to the bed-root. But should there appear to be a deficiency of eyes on the bed-root, then cut those stumps a little higher, saving some of their eyes or sprouts. These old stumps usually contain plenty of eyes; they ought not to be used as roots for planting new yards. An Otsego Hop Grower.

Application of Guano.—I want to know the best way to apply guano to oats, to corn, and to meadow land. H. S.

A. B. Allen, of New-York, thinks that the best method of applying it to crops in our dry climate, is to plow it into the ground, that it may become thoroughly incorporated with the soil. For grass land, it should be spread broad-cast, either in autumn, or early in spring.

Poultry—Chinese Varieties.—S. R. W. inquires which are the best breeds of domestic fowls, for the Northern and Middle States, all things considered.

I think it capable of demonstration, that the Chinese fowls, so called, viz: the Chittagong, Shanghai, Cochin China, when well bred, are the most profitable for any man who wishes to keep fowls; whether it is the farmer who lets his fowls run at large, the cottager who keeps his half-dozen fowls about his door, or the scientific breeder, who keeps his thousand or two, with all the conveniences necessary for the same.

They cannot be surpassed for layers, even by what they call their every-day layers, or their everlasting layers. Six good fowls of these breeds, will lay more eggs, and of a far superior quality, than twelve of the best common fowls, under the same circumstances; then their greatly increased size when wanted for the table, and their quiet peaceful domestic dispositions, render them small eaters and easily fattened, for the amount they return, and makes them easy to control and keep in any desired yard or enclosure.

Among these three breeds, my preference is decidedly in favor of the Chittagong, as possessing all these good qualities, and many more in a remarkable degree; for beauty and elegance of form, they are not surpassed by any fowl except the game fowl. They have a large body, with small legs, with a small delicate and beautifully proportioned head and neck, and must dress large, or in other words, have less offal than any other fowl. Dr. Bennett's description of them in his Poultry Book, is very accurate, and the position he places them, in relation to other domestic fowls, is what justly belongs to them. They can be procured of John T. Andrew, Esq. of West Cornwall, Ct. B. F. Sherman. *Ogdensburgh, March* 15, 1853.

Information Wanted.

Super-phosphate of Lime.—Wishing to make use of some of the Super-phosphate of Lime, I wish to know how it may be applied to a crop of corn to the best advantage; and also if it will pay to sow broadcast upon meadow land? W. W. W. *New-Britain, Ct., March* 14, 1853.

Gypsum.—Can you or some of your subscribers, inform us by experience, the difference between Nova Scotia and Western Plaster, through the columns of your paper? A. S. F.

Dorkings.—I wish to procure some Dorking fowls. Will some one inform me, through your paper, where they can be had, of undoubted purity? C. W. S.

The Wheel Cultivator.—Can you or any of your correspondents inform me the through the Country Gentleman, of something to prevent the wheel cultivator from running into the ground so deep, as to cause sore necks on the horses or oxen in drawing the same; I find that when the wheels are placed near the center of the frame, as they usually are, even if the whiffle-trees are placed below the tongue, the tendency of the forepart is to bear too heavy on the necks of the team, and cause serious inconvenience. Would it be an advantage to place the wheels near the forepart of the frame, and have a smaller wheel or wheels to regulate the depth of the back-part, something like Root's improved cultivator? Also whether wheel cultivators, with a joint in the middle, like Geddes' harrow, are liable to the same disadvantage.

A reply through your columns, in time to make a few alterations before the season for using them, would be advantageous. J. M. *Lock Berlin.*

Pumpkins with Corn.—Is it good policy to plant pumpkins, squashes, &c., among corn? Do they not act much in the same way as weeds, and materially lessen the corn crop? I know it is an universal, and I think an erroneous custom, among most farmers to plant pumpkins with their corn. Will some of your readers answer these inquiries, through the columns of your paper, and much oblige Young Agricola. *Cayuga Lake.*

The Sweet Potato.—I wish to obtain the best instructions in regard to the cultivation of the Sweet Potato, and shall be greatly obliged if some of your southern correspondents will furnish the information desired. H. J. *Alabama.*

Preserving Eggs—Rancid Butter.—Some of the shippers in Boston, are in possession of a secret for packing eggs, to keep on a long voyage. Can you inform me how it is done? Also, how to restore rancid butter to its original sweetness. G. D. *New-York.*

The Water Ram.—Permit me to make an inquiry in the Country Gentleman, respecting the use of the Water Ram. I wish to know if this article is durable or not? Is it frequently out of order, or will it continue to operate for a long time? I also wish to know what the result would be in a spring of water, where eight gallons are discharged in one hour with four feet fall, and it is desired to raise the water 20 feet? Any information on this subject, will be thankfully received from any one who has had experience in the matter. A Subscriber. *North Springfield, Vt., Feb.* 28,1853.

Management of Cream.—Will you or some of your subscribers inform me, whether the various modes of churning cream, materially vary the quantity of butter from the same amount of cream? And if so, what mode will produce the most butter. It is contended by some, [and very correctly—EDS.] that any process that separates the butter from the cream, very suddenly, produces a less quantity of butter.

I would also like to be informed, whether there is not an advantage in cooling milk in warm weather after milking, before taking it to the milk room? It can be readily cooled by being put in tin vessels, and placed in a vat of cold water; but it is thought by some, that a warm liquid will not so readily impart its heat to the surrounding atmosphere, as other warm substances.—[More so—because it cools in three ways,—by contact, by the circulation of its particles, and by evaporation—EDS.] I would also like to be informed, if a damp room is actually detrimental to the rising of cream, and also the best method to prevent cream as it rises on the milk, from drying and becoming hard and scaly. Will you or some of your correspondents, give me the desired information on the above subjects. G. H. T. *Barbourville, N. Y., March* 19, 1853.

QUESTION.—What is the easiest, quickest and most effectual way of ridding a garden of horse-raddish? J. W. SMITH. *Croton, N. Y.*

Trial of Implements at Geneva, 1852.

MR. TUCKER—In reply to that portion of the Review of the recent trial of Horse-Powers, &c., at Geneva, by H. L. Emery, which relates to my machine, my object is to make a *plain statement of facts.*

The experiments with the balance scales or steelyards, of which Mr Emery speaks with so much emphasis, I did not consider of any importance, and that the committee viewed them in the same light is evident from the fact that the results of said experiments did not appear in the report. As the error from which Mr. Emery must have made his deductions is in the result of the experiment at Utica, and is applied alike to all his calculations, it is necessary to copy the result of that experiment from the report:

EXHIBITORS.	Revolutions of driving wheel.	Length of platform moved to produce one revolution.	Feet traveled on the platform.	Perpendicular elevation.	Weight raised thro' the perpendicular space.	Revolutions of the cylinder.	Weight of the five men.
Emery, ...	259	10⅜	224	50.39	160.62	1996	714
Badger, ...	360	10	300	67.48	160.62	2160	714

"It is obvious, from the foregoing tables, that Badger's "machine works with the least friction; or in other words, "gravity gives to his machine a greater amount of useful "power than to either of the other machines on trial, having "the advantage in regard to the revolutions of the cylinder "of *seven and a half* per cent. over Emery & Co., and a "still greater advantage over Westinghouse. In regard to "the power exhibited by the weight descending the platform, "it appears that the same weight moved Badger's platform "300 feet, and Emery & Co.'s 224 feet, the difference (76 "feet) being 25⅓ per cent in favor of Badger's power."

In the above experiment the revolutions of band wheel to my power is put down at 360, and the number of feet traveled on the platform 300, while it should read thus:

"Badger power—revolutions of band wheel, 300; number of feet traveled on platform, 250."

To prove the truth of this statement, the size of pulley on thresher used in experiment, was 5 inches, and size of band wheel on my power is 36 inches. Now, 2160 revolutions of cylinder requires 300 revolutions of band wheel, and 10 inches platform to each revolution of band wheel requires just 250 feet of platform traveled per minute. As the revolutions of cylinder in the above experiment was obtained by applying the speedometer directly to the cylinder shaft, and the revolutions of band wheel, &c., calculated therefrom, it is not singular that such error should exist in the report, nor is it singular that Mr. Emery should make use of such error, inasmuch as it enabled him to establish a superiority. Now, had the internal gearing of my power been such as to require 300 feet velocity of platform to produce 2160 revolutions of cylinder, then a portion of Mr. Emery's argument would stand. But calculating from the sizes above, it would readily be discovered that my power is not geared 27 per cent. slower than the Emery power, but essentially the same; consequently the deductions, as far as relate to my power, are erroneous and of no effect—thus showing that Emery's power did not exceed Badger's by 23 per cent., but that Badger's exceeded Emery's by 7½ per cent. as stated in the report. Had my power been as carefully fitted for the occasion as was the Emery power, it would, in all probability, have exceeded it by double that amount. It was my object to exhibit such an article as I furnish to all purchasers, and this I expected to be the rule of the society; as taking for a standard an article, the finish and capacity of which could not be reached as a general rule; would be apt to shake the confidence of the great mass of farmers in the recommendations of the only institution to which they can look as a guide.

From further perusal of the review, it appears that the author did not place implicit confidence in his own deductions, as he endeavors to show that the Emery power did not produce as favorable results at Utica as Geneva. He says:

"And while this power was transported from Geneva to "Albany, and back to Utica, by rairoad, it became filled in "in all its gearings with coal and cinder from the locomo-"tive, being on an open car. It became necessary to take "its every part to pieces, and was cleaned as well as could "be done under the circumstances, while both the others were "different powers than used at Geneva, one being brought by "wagon, with great care, to Utica" (this means my power.) "This is named to show the cause of the relative difference "in the trials of friction at the two places. This fact was "made known at the time to the committee, but was not no-"ticed by them." It is proper to state here that, having sold the machine I had at Geneva, I obtained permission of the committee to leave it, and exhibit another at Utica; and as to its being "brought by wagon with great care," it is well known by all who were present, that the dust was from 2 to 6 inches deep in the road, and consequently my machine suffered as much as did Emery's, but it was not taken apart nor cleaned.

Now let us see what the difference in the trials of friction were at the two places. By referring to the report, it will be discovered that in the experiment at Geneva, in which 6 men were placed on the platform, whose aggregate weight was 925 pounds, the band wheel of Emery's power produced 240 revolutions (Badger's 250), while at Utica, with only 5 men on platform, whose aggregate weight was only 714 pounds, the band wheel of Emery's power produced 259 revolutions (Badger's 300), being attached to a thresher in each case.

This shows that at Utica the Emery power, with about 23 per cent. less weight on platform, run over 7 per cent. faster than at Geneva. From the above, it appears that the Emery power was benefited by its journey to Albany, notwithstanding the "coal and cinder, of which the committee would take no notice." It may be proper here to state that in the experiment at Geneva, in which 6 men were placed on platform, the result was 250 revolutions of band wheel to my power, instead of 150, as in the report It is probably an error in figures, and is the cause of the clash in deductions, of which Mr. Emery says: "(Rather an ambiguous method of reporting, to say nothing of the errors.)"

It would be unnecessary to prolong this article, had not the author of the review made a long list of comparisons in regard to the threshing tests at Geneva, which tests the committee pronounced *imperfect, and not to be relied upon.*

By referring to the report, it will be found that the time consumed in threshing 100 sheaves of wheat, with my machine, was more than with either of the others.

In the first place, each competitor was furnished with 100 sheaves of wheat. It so happened that the two parcels (one for Emery and the other for myself) were of nearly equal quality, both being full of grass and weeds. The Emery power threshed the parcel assigned it, with the thresher so adjusted that it did not thresh clean until the majority of the parcel was run through, when the *concave was screwed down.* The time consumed in threshing this parcel was 17 minutes 20 seconds. From some cause, the Emery power was allowed another trial, which was made the next day, the straw in this case being comparatively free from grass and weeds, and in much better condition. The time consumed was 10 minutes 30 seconds, as in the report. In the meantime the parcel assigned to myself lay until the next day in a pile, which caused it to sweat and become tough. It was run through while the cylinder was running at the rate of 1600 revolutions per minute, when it requires but 1400 to thresh any kind of grain (being 1½ inches larger in diameter, and containing 18 more teeth than the Emery Thresher); consequently the grain was not only threshed perfectly clean, but the heads were taken off, and the straw much cut to pieces. This absorbed a great amount of power, and consequently the time consumed was 17 minutes 30 seconds, being 10 seconds more than the Emery Power. Under the circumstances, I asked for another trial, which was granted by the committee, but before it could be had, the grain got wet, and the result of the first trial was necessarily placed in the report.

The committee in speaking of the grain in the report, say, "It was obvious, when inspecting the various parcels of "wheat, that a difference existed with respect to the quantity of grain and straw in each. Some were free from "grass and weeds, while others were materially affected "with them. It seemed clear, therefore, that the table "would present an imperfect test." This is sufficient to show that the relative merits of the different machines could not be determined by the amount of time consumed in threshing 100 sheaves of wheat of so unequal quality. To prove this still further, the Westinghouse maching threshed 100 sheaves of wheat at Geneva, in less time than either of the other machines on trial; while at Utica, the same machine fell short over 35 per cent in point of power. As the superiority of one horse power must be owing to its internal arrangement, I will endeavor to point out the difference in the two powers under consideration, and the public may judge as to the utility of each.

As it requires the same amount of gearing to obtain the necessary velocity in any power, there can be no great difference in that point, consequently it must be in the action of the platform, or chain, over the reels, and the arrangement of the friction wheels, by which the platform is supported. In the Emery power, the joints in the chain are 7 inches apart, and supposing the diameter of the reels to be 13 inches, each link as it passes to that point from which the power is obtained, cuts across the circle, thus shortening the lever purchase from the centre of the shaft 1 1-16 inches. In my power, the joints in the chain are 4 inches apart, so that the lever purchase is shortened but 5-16 of an inch, consequently the action is nearer the direction of a tangent to the circle than in the Emery power, and has an advantage over it in that proportion.

In the arrangement of the friction wheels or rollers my power has a still greater advantage. The Emery power has 60 Rollers 3½ inches in diameter. These run on wrought iron journals about 5-8 inch in diameter. Supposing the amount of time required to thresh 100 sheaves of wheat, is 12 minutes, and the platform of Emery power moves at the rate of 169 feet per minute, each roller must make over 2,300 revolutions to thresh 100 sheaves, besides every roller must come to a dead stop, and start in another direction twice to each revolution of platform. In my power there are 18 rollers, 8 inches in diameter, which support the horses, and 8 rollers 6 inches in diameter, which carry the platform back on the under side. These rollers move on cast steel journals ½ inch in diameter, supported at each end. Taking the proposition as before, 12 minutes requires 1,014 revolutions of each roller steadily in the same direction, being over 100 per cent less than in the Emery power. The difference is just here, in the Emery power there are 60 rollers running at the rate of 193 revolutions per minute. In my power there are 26 rollers running at the rate of 84 revolutions per minute, one on iron and the other on cast steel journals. Now it is plainly evident that the advantage is in favor of my power by over 100 per cent, both in durability and friction.

The following recommendations from a few practical farmers, the most of whom, are well acquainted with the operation of both powers, is introduced to substantiate the foregoing statements.

We, the undersigned, being practical farmers, having had occasion to make use of some of the numerous labor saving machines of the day, after looking about to see where we could obtain the best horse power Threshing Machine and saw attachment, we came to the conclusion that E. W. Badger's Machines, which are manufactured at Fly Creek, Otsego Co., N. Y., are superior in operation and durability, doing work faster and better than any other machine we have examined The internal operation of this machine on large friction rollers has, in our opinion, a decided advantage over all machines using small rollers, confined to a railroad track, as they are less liable to get out of repair, and if out, more easily righted. The machine is plain and simple in all its construction, and connected as it is with the under shot thresher and separator, makes it a very desirable piece of property for every farmer to have. As each of us have used one of the above named Badger machine, we would recommend every farmer who wishes such machinery, to examine the Badger Machine before purchasing elsewhere:—

D. H. Higby, Greig, Lewis Co. N. Y.
Josiah Ward, Floyd, Oneida Co. N. Y.
William Potter, Floyd, Oneida Co., N. Y.
J. S. Hamlin, Floyd, Oneida Co., N. Y.
T. S. Egerton, Rome, Oneida Co., N. Y.
John J. Johnson, Middlesex, Yates Co., N. Y.
Daniel Griffith, Frankfort, Herkimer Co., N. Y
J. W. Pierce, Floyd, Oneida Co., N. Y.
John Price, Mohawk, Herkimer Co., N. Y.
Cornelius Van Camp, Minden, Herkimer Co., N. Y.
Jeremiah Bander, Minden, Herkimer Co., N. Y.
Thomas Tunnacliff, Stark, Herkimer Co., N. Y.

In conclusion I would say that it would give me pleasure to submit my power, &c., to be tested in competition with the Emery or any other power, by a fair trial, and abide the consequences. In the mean time I am prepared to warrant my Machines to be superior to any other endless chain machine, both in durability and power.

LIST OF PRICES.

Two-horse power, Thresher and Separator, bands, wrench, oil cup, &c., complete,	$145 00
One-horse power Thresher and Separator, bands, wrench, oil cup, &c.,	120 00
First premium Circular Saw Mill,	35 00
do do X-cut do	25 00
Thresher and Separator,	35 00
Thresher without Separator,	25 00

E. W. BADGER.

Fly Creek, Otsego Co., N. Y.

Albany County Agricultural Society.

Pursuant to notice, a meeting was held at the State Agricultural Rooms, in this city, on Thursday, 14th inst., for the purpose of organising an Agricultural Society for Albany County. On motion of B. P. Johnson, Esq., J. W. Jolly, of Coeymans, was called to the chair, and Joseph Warren, appointed Secretary. A committee was appointed, who reported a Constitution and By-Laws complete, which were adopted:—

The following board of officers were elected.

President—James W. Jolly, of Coeymans.
Vice Presidents—Dr. Herman Wendell, Albany; E. Millbank, Bethlehem; James Blodgett, Coeymans; Christopher Batterman, Guilderland; Prentice Williams, Knox; David Calanan, New-Scotland; Levi Shaw, Rensselaerville; D. D. T. More, Watervliet; Isaac D. Verplank, Westerlo; A. J. Dietz, Bern.
Secretary—Joseph Warren, Albany.
Treasurer—E. E. Platt, Albany.

A committee of four from each town, to co-operate with the Vice Presidents in soliciting members and promoting the interests of the Society, were also chosen. A meeting of the Executive Board is to be held at State Agricultural Rooms, on Saturday, April 30, at one o'clock P. M., at which time, a premium list will be reported, and measures decided upon to render the society immediately effective.

A very commendable degree of activity has been shown by the farmers of the county in forming this organization, and we trust zeal and energy will not be wanting to place it once on a permanent and extending basis.

◆

Planting Beans among Corn, between the hills, is recommended by the Michigan Farmer, on the authority of a correspondent. He thinks he gets as much corn, (which is doubtful, as the beans must operate as weeds,) and fifteen bushels of beans per acre, at a very small additional cost in labor. As the beans and corn are supported by different portions of the soil, both from the chemical nature of the plants as well as from the different length of roots, it is probable more may be obtained from a given surface than with either separately. We are not in favor of mixed crops unless a decided benefit is obtained, and if *accurate* experiments were made by some of the many who have adopted this double crop, it would enable them to decide understandingly of its comparative merits.

Cement for Brick Buildings.—The *Scientific American* gives the following mode of applying a paint or cement to the faces of brick buildings, giving them a strong resemblance to free-stone, and which never scales off. The houses are built with coarse brick fronts, and afterwards receive two or three coats of boiled oil. They are then covered with a peculiar mastic cement, composed mostly of sand, some boiled oil, some red lead, and a little plaster of Paris. It resembles moist sand when put on, but sticks well, and in a short time becomes as hard as freestone, forming an enduring coating of artificial stone.

Horticultural Department.

Top-Dressing Lawns.

Mr. Downing and others recommend poudrette as a top-dressing for lawns. Do you approve of it, and if so, at what rate per acre should it be applied?

It is also recommended by various authorities to use "weak guano-water" for newly planted trees and shrubs. And yet I never saw it distinctly stated *in what proportions* guano and water should be mixed for this purpose. Can you inform a tyro on this point?

It would gratify me, and I presume it would many of your readers, if you would give us your views at length, as to the best mode of improving the grass of lawns. Some of us, having our grounds already planted with trees and shrubs, cannot well plow, manure, and seed down afresh; but we can procure guano, poudrette, bone dust, charcoal, ashes, &c., to apply as a top-dressing. Now, will you tell us the best thing that can be done with these manures as a top-dressing? My soil is a clayey loam. G.

Guano forms a powerful top-dressing for lawns, when properly applied. At this season, it must be in a state of solution. Many times its bulk of water is required, but the solution will be too strong for the plants with less than about 80 times its quantity of water. It may be applied in the spring of the year so as to give about 300 lbs. of the solid guano to the acre.

Sowing the powdered guano late in autumn broad-cast over the grass, to be washed in by the rains, has been found to produce an excellent result. The grass at this time consisting principally of tough and dry leaves, is not injured by the caustic nature of this powerful manure.

Not having had any experience with poudrette, we cannot give precise instructions, but if applied to grass, autumn is unquestionably the best time for the application.

No perfect lawn, such as will endure drouths with impunity, and retain its fresh green through the heat of summer, can be had without a deeply trenched and deeply enriched soil. But top-dressings with any good manure will serve materially to lessen the difficulty, and liquid manure is still more efficacious. The application of the drainage of sewers, has been found to effect wonders, in some experiments in Britain; its effect could not be less in our dryer climate. The perfect freedom with which the fertilizing portions of liquid manure diffuse themselves through the soil, gives it extraordinary efficacy. Charcoal, in itself, possesses little or no fertilizing power; bone dust and ashes, in moderate quantities, would generally be useful.

Trench-plowing Gardens.

Many persons who are well satisfied of the eminent advantages which would result from trenching their gardens, are deterred from it on account of the cost. For these, trench-plowing is just the thing. This, as every one may know, differs from sub-soiling by turning up and mixing with top-soil that portion beneath the ordinary depth of the furrow, while the sub-soil plow only loosens without raising to the surface. The subsoil plow will always be found highly advantageous in preparing for the trench-plow, which will perform its work much deeper and more perfectly if the sub-soil has been previously pulverized. We have lately seen a description of a trench plow, with a narrow share and mold-board, and with a high arching beam, whose lower side was twenty inches above the point of the share. It followed in the ordinary furrow, and the horses were attached to it by means of a dial clevis, so as to throw the plow on one side, and both animals could walk on the hard ground, instead of the off horse being compelled to tread upon the deep, mellow earth in the furrow, which is not only difficult for the animal, but injurious to the soil.

Soils deepened in this way, and well manured, will not suffer as other soils from drouth, and most garden crops grown upon them will be large, fine, and uniformly of high quality

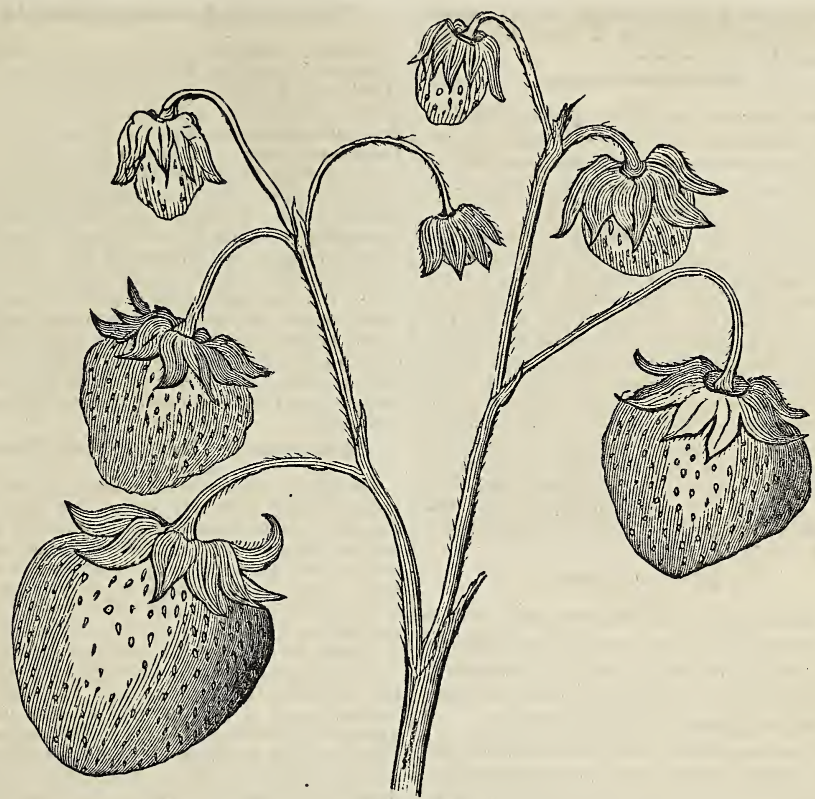
Management of Old Orchards.

Many old orchards, now to be seen in all parts of the country, have rough and mossy trunks, and thick masses of stunted or half dead branches; bearing, as a matter of course, but small crops of fruit, with specimens too small, and too deficient in flavor, either for profitable marketing or for home use. Those who may have such orchards in their possession, will find some excellent hints in the following statement, condensed from the report of Daniel Stickney, of Lebanon, N. H., to the Connecticut River Valley Agricultural Society.

"I commenced with my trees nine years ago last April. They had been neglected till their tops were a complete hedge of green and dry branches. I first removed all the dry limbs, and all the green ones that interfered; leaving the heart of the trees in proper condition for growth. In one year, I commenced grafting about one-fourth of the remaining top, using grafting wax, and watching the trees through the season, and carefully removing all new sprouts which would overgrow the scions. I commenced at the top, and inserted grafts for three successive years—by which time enough were growing to form a good new top, removing all redundant sprouts in the mean time. The fourth year, all the remaining branches were cut off. The first grafts fruited the fourth year, and have never since failed to yield a fair crop. The orchard has about 30 trees, and I have gathered from it this year 36 barrels of grafted fruit, of about ten choice varieties.

"Encouraged by my success, I have commenced an older and much decayed orchard, which now promises equal success; and I conclude that no outlay on the farm is more sure or will pay more liberally than our old orchards, if managed as they should be."

Sulphur for Curculio.—Fumigating plum and nectarine trees early in the morning to repel the curculio, has been tried to some extent lately, and where the insects are not very numerous, has been attended with success. The following mode, which appeared in a late number of the Michigan Farmer, appears to be of more easy application and of more certain results:—A pan is filled with chips, with sulphur intermixed, and being subjected to slow combustion, so as to remain three or four days, is placed under the tree. This is well worthy of trial by those who are not afraid of the smell of brimstone, but its efficacy can be only proved by experience.



THE GOLIAH.

The Goliah Strawberry.

One of the last fruits to which the lamented A. J. Downing called attention, in the pages of the Horticulturist, was a strawberry sent to him by Messrs. Hogg & Son, the respected nurserymen of New-York, called the "Goliah," the favorable accounts of which there given by Mr. Downing, appear to us to derive new interest from a statement which has recently been put forward by Mr. James Kitley, of Lyncombe Vale Nursery, Bath, England, as to its bearing qualities, which he thus describes:—

> A bed 36 feet by 9 feet, six years old, produced the last season 90 quarts of fine large fruit; and a bed 36 feet square, three years old, in which the plants were 2 1-2 feet apart, produced 255 quarts of high colored pine flavored fruit.

We give, from the pages of the Horticulturist, a figure of this fine variety. Mr. Downing's account of it is an ample testimony to its merits; and we shall like to hear from Dr. Hull, and any other growers of it, how far Mr. Kitley's statement of its produce agrees with its yield in this country. We hope our friends will make a memorandum, to oblige us with this information when the season arrives, and Mr. Longworth among them; for it is most desirable, (as it will be one of our special objects) to ascertain and record, for general information, the comparative *real* value of new fruits of all kinds. And this, in many instances, can only be efficiently done by the aid of our friends. In giving the crops of many small fruits, and of the strawberry in particular, the *number* of berries, of average size, that are requisite to *weigh a pound*, should be stated. This is a great assistance to the formation of a correct estimate; although we by no means intend to imply that size is the primary test of excellence. Far from it. B. M.

◆

The Clinton Grape.

A correspondent of the Horticulturist, who has kept specimens till mid-winter, "as fresh and as perfect as they came from the vine," considers this variety superior to any other for its keeping qualities, which appears quite probable from its very high-flavored juice, as it is well known to those who practice preserving fresh cherries, which resemble grapes in texture, that the Dukes and Morellos, corresponding in their flavor to that of the Clinton grape, remain in a finer state of preservation than other cherries. Will not this characteristic of the Clinton grape, in connection with its extraordinary vigor of growth, its entire freedom from rot, and its productiveness, render it one of the most valuable grapes for marketers, to preserve for winter sales?

Although this variety ripens some two or three weeks earlier than the Isabella and Catawba, there is reason to believe that a hot summer is best for developing its full flavor, as we observe it is more highly spoken of in the neighborhood of Cincinnati than farther north; and in the vicinity of

Plattsburgh, as a friend informs us, its quality becomes so poor as to render it unworthy of cultivation.

Grape Culture.

The Cold Grapery, from direct American Practice; being a concise and detailed treatise on the cultivation of the exotic grape vine, under glass, without artificial heat. By W. Chorlton, gardener to J. C. Green, Esq., Staten Island, New-York.

The cultivation of exotic grapes in cold-houses has spread very rapidly through all parts of the country, and has, within a very few years, become a very important and interesting branch of fruit culture. A practical manual on this subject has consequently been very much needed, and we are glad to see this want supplied by the work before us, which is a plain, practical, unpretending treatise on the construction of cold graperies, the formation of the borders, and the selection, planting, pruning, training, and general management of the vines, drawn from the author's actual experience, in which he has been eminently successful. It is an 18mo. book of 95 pages, containing no more than what is actually necessary as a guide to beginners.

The Kitchen Garden.

Sea Kale.—This very agreeable and delicate early vegetable should be more known. Blanching by covering with sand is not so convenient as an inverted box or keg, placed over the plant when just commencing its spring growth.

The Bassano Beet.—This is undoubtedly the best *early* beet, but it is next to impossible to get pure seed. We cultivated this variety in 1841, when it was first introduced, and the beets, about 6 inches in diameter, were as flat and as *smooth* as a Norfolk turnep. All that we have lately procured or seen exhibited at fairs, are evidently more or less mixed with the turnep beet, and are considerably irregular or ribbed in form.

Varieties of Pie Plant.—Some of the newer varieties of the Rhubarb or pie plant, are noticed in the Midland Florist, which may be worthy of careful trial in this country, when they shall be introduced for sale. Among the most highly spoken of are *Fox's King Alfred* and *Bailey's Monarch*, both of which are pronounced " excellent." The last named is rather the earliest of the two, quite as forward as Prince Albert, and both are declared to be " infinitely " superior to it. Bailey's Monarch is erect in habit, handsome, both in foilage and stem, and of exquisite flavor. Fox's King Alfred is stated to be ready to pull when the Victoria is peeping out of the ground—is very large, of beautiful color, and excellent for cooking. *Linnæus* is a very productive, high flavored, second-early sort. *Sanguinea* is of a fine blood color, rather late, and has a beautiful appearance and fine flavor. *Myatt's Victoria* is superseding most other sorts for size and quality. The following sorts are given as the best selection for a succession:—Bailey's Monarch, Fox's King Alfred, Myatt's Linnæus, and Myatt's Victoria. The following varieties are discarded:—Giant Scarlet, White Perfection, Jamesii, Lee's Seedling and Mitchell's Prince Albert.

Importance of Draining Orchards.

Robert Thompson, of the London Horticultural Society, gives a striking instance of the results of draining an orchard, which was planted upon a retentive marly clay. The trees grew tolerably at first, but afterwards very poorly, and in twelve years ceased growing and some died. It was then determined to drain the land—3,000 feet of tile were laid, three feet deep, and 48 feet apart in parallel lines. A year or two afterwards 3,000 feet more were laid 30 inches deep between the others, making the drains 24 feet apart—the ground was dug 8 inches deep and the trees pruned. The orchard bore 75 bushels the next year, nearly double the amount of any former year, and those so stunted that they had not made any growth for years, now sent up vigorous shoots. They continued in this fine condition for years, up to the time of writing, making shoots often three feet long.

Washes for the Bark of Fruit Trees.

The Working Farmer, in speaking of the inefficiency of lime wash, objects to it on account of its quick conversion from a caustic state to the state of carbonate, forming a hard crust upon the surface, and preventing the perspiration of the bark. Soap is recommended on account of its well known mildness, and consequent safety of application, at the same time that it preserves its causticity for an indefinite period, assisting in the destruction of insects and their eggs, and softening and cleansing the bark, as each successive rain washes down a portion. A solution of soda (known as bleacher's soda No. 1.) is most strongly recommended, for its power to cleanse, soften and render healthy the bark. For using, a pound is dissolved in a gallon of water. We mention these applications in order that our fruit raising readers may be able to give them a fair trial for a comparison of results.

Treatment of Injured Trees.

In the Country Gentleman for last week, I notice a letter from C. H. Cleaveland, recommending the use of Forsyth's compound for injured fruit trees. I presume he has not made use of it himself, or he would say so distinctly. I tried a great many experiments with it some years since, and being finally convinced that its healing qualities depended solely upon its capacity for excluding the air, I have since abandoned its use, because there are plenty of other materials which will answer equally well, which are much less troublesome to procure and apply. Gum shellac, dissolved in alcohol, is as good an application as can be made to small wounds, and in larger places, (as where part of a trunk of a tree is decayed,) I have found common grafting clay or wax to answer certainly as well as Forsyth's composition.

Forsyth's book was published fifty years ago, at which time horticulture was not as well understood by the people generally as at present. He was the king's gardener, and anything coming from him would possess more than its intrinsic value; and as for the certificates which accompany it, they can be had for anything, from a manure to a rose.

However, I would by no means object to a any body's using it, and will add my testimony that it is a good plaster to keep the air out, which I take to be the chief object of all plasters. H. W. S. Cleveland. *Burlington, N. J., March* 30.

The Curculio.

Here is a remedy for the curculio, which proved entirely successful in the garden of one of our citizens.

As soon as the fruit began to form, and the curculios were found to be about the trees, he took a barrel of air-slaked lime into the garden, and with a large shovel threw the lime among the trees, covering them completely, and to use his own expression, "making a *perfect smudge*." At this they seemed displeased and left; he observed them crawling over the lime-covered fruit in a few instances, but they appeared restless and uneasy, and soon all left. Along in June they again made their appearance, and the liming was repeated, which was again successful in driving them away; and once again, just before the plums began to ripen, he gave the trees another dose, having observed some curculios about. His trees were loaded with fruit, while there were but few grown elsewhere in the city. A large branch, loaded, was exhibited at the August exhibition of the Detroit Horticultural Society. I have no doubt this course would prove successful if thoroughly tried, and where the trees, as in this case, are sheltered from violent winds. Chas. Betts. *Detroit, Feb.*

Hardy Peaches for Oswego.

The Beckworth Peach.—This peach was raised from seed by Dr. Beckworth, near this city. The tree is very hardy, a fine grower, and never mildews, and a great and constant bearer. Fruit from medium to large—color red next the sun—flesh yellow, rich and good; red at the stone, which is small for so large a fruit—ripe the first of Sept. This peach sometimes reaches, in good cultivated gardens, nine and ten inches in circumference. All know the past season has been an unusual hard one for peaches. The Beckworth Peach with me, gave a fine crop, whereas the Early Tillotson, and other fine varieties, produced none. N. Goodsell informed me that in this county, wherever he found the Beckworth peach tree, he found peaches.

We have another fine peach, found growing in the garden of Esq. Lord, in this city, name unknown, though we sometimes call it the Lord Peach, to distinguish it from others. The tree makes a round, bushy, hard young growth, short and strong; slightly mildews at the top—leaves large, deep serrated. The leaves on this tree are never affected with the curl. Fruit medium in size, speckled with red next the sun—flesh, white, juicy, sweet, and first rate—ripens with the Early Tillotson, and equal to it in flavor. The White Imperial and Cole's Early Red, and a few others, promise well. S. Worden. *Minetto, Oswego Co., N. Y.*

Horticultural Notes.

Peach Stocks for Plums.—These have been pretty thoroughly denounced by cultivators generally, and yet in some instances they have succeeded well. S. L. Goodale, of Saco, Maine, an intelligent and successful cultivator, states that out of five hundred young trees, planted with care in the best possible soil, not one in twenty ever paid the first cost of the tree. Other experiments resulted still more unfavorably, all perishing after cumbering the ground from two to five and seven years. He gives an exception however in case of a tree of the Imperial Gage, one of the best varieties for this purpose, which grew twenty five feet high, eight inches in diameter, and bore bushels of fruit. Henry Little, of Bangor, an equally skilful cultivator, entertains a more favorble opinion of peach stocks, and describes a tree in his garden which for seven years has grown finely and borne enormous crops, the branches resembling clusters of grapes, or strings of onions.

Manetti Stocks.—The Manetti Rose has been cultivated for some years past in this country, but what success has generally attended its use as stocks for budding, we have not been informed. A late number of the *Gardener's Chronicle*, presents some very favorable reports. A border of pillar roses, was planted eight or nine years ago, chiefly with varieties of Hybrid China, and Hybrid Bourbon, a part budded on Manetti, and a part on the Dog rose. At the present time, those budded on Manetti stocks, exhibit an appearance of great vigor, and present a strong contrast with those on the Dog rose. The former are seven to eight feet high, and among them are Baronne Prevost, Charles Duval, Legonne, Parigot, &c. They are ten years old, and the union between bud and stock is so perfect as scarcely to be distinguished. The following sorts are mentioned as succeeding very finely on this stock:—" Standard of Marengo, Duchess of Sutherland, Baronne Prevost, Beranger, Caroline de Sansal, Baronne Hallez (the most perfect and beautiful rose ever seen,) Geant des Batailles, &c."

Fruitfulness of Budded and Root-grafted Trees.—Some months since, we published an abstract of the discussions on this subject in the North-Western Fruit Convention—we have just received the following remarks from Adnah Williams, of Galesburg, Ill. " Have you observed any difference in the fruitfulness of trees, whether budded or root-grafted—here, trees that have been worked on sections of roots,—one of the first lots of trees planted here, brought from the neighborhood of Rochester, (from Asa Rowe, of Greece,) whether worked on whole or pieces of roots, I am unable to say, have almost universally proved unproductive, hardly an exception to be found; while trees sold from another nursery commenced here some years afterwards, which were budded, have, almost without exception, proved very fruitful." Some varieties are usually very productive, others the reverse—we do not see on what principle this peculiarity of those sorts could be so essentially changed by the mode of propagation—unless budding serves to render them more like dwarfs, and consequently tends to the production of fruit-buds. But facts are facts, and the subject is worthy of further examination.

Dwarf Pears for Market.—A writer in the Maine Farmer, proposes the four following varieties, for profit, in the following proportions for every hundred, which is a good selection:—

50 Louise Bonne Jersey,
20 Vicar of Winkfield,
20 Beurre d'Aremberg,
10 Glout Morceau, (strong soil.)

Large and Small Trees.—Dr. Emmons, in his geological report, mentions evergrees trees on the Adirondack mountains, so reduced in growth by altitude as to be only five or six inches high, and Humboldt, in his "Cosmos," speaks of a species of pine only three tenths of an inch in height. On the other hand, the writer has seen pine trees in Tompkins county, N. Y., that measured one hundred and seventy feet high, which however were mere liliputians compared to the giants of the western coast in Oregon and California, some of them 10 feet in diameter, and 260 feet high—one, measured by Lewis and Clark, was 318 feet. A single tree in Astoria has made a hundred thousand shingles, which sold for $1500, in gold.

The Grazier.

Protection of Stock During Winter.

It is of vast consequence to the farmer, to decide the question whether stock should be sheltered during winter. Having been largely engaged, for many years, in the wool growing business, I have no hesitation in answering the question affirmatively. I found it the highest economy to have large and commodious shedding for all my sheep, though built in the cheapest manner; deeming it unwise to expend more money than was essential to the object in view, viz: to protect the stock and hay in the racks from the rain and snow. Having selected some place near a spring, on a dry soil, ground inclining sufficiently to carry off the water, and of equal importance, protected by rising ground from the prevailing storms, I planted three rows of posts—the middle range on the inside; which rough frame work was covered with boards with little expense. The roof should have a pitch of about 40 to 45 degrees. Where the situation was exposed, I boarded up the sides to keep off the winds.

With such rough structures, my success was eminently gratifying, as compared with my former barbarous practice of feeding my hay on the ground off the stacks. I have carried flocks of two thousand sheep through our hardest winters, with a loss of something less than three per cent. By getting the sheep into good order in the fall—taking good care of them in November and December—giving them the privilege of the sheds during winter, and giving them plenty of good hay in the day, I was saved the mortification of seeing them die off like rotten sheep in the spring of the year. Whether the theory of Liebig is correct or not, viz: that the lower the degree of cold to which the body is exposed, the more fuel must be added in the form of provender to keep up the standard of animal warmth; this I know, that the same amount of provender goes infinitely farther in keeping up a certain condition, when they are sheltered, than when exposed to the storms; and in support of Liebig's theory, would cite the acknowledged fact, that sheep will consume only about one-half the amount of hay during a warm winter, as compared with a very severe winter; also, another fact, that when sheep, by previous bad management, are permitted to get very low by the month of March, you cannot by any skill preserve them when unsheltered. Give the same sheep the privilege of shedding, and by care, they will not only live but improve through spring. Is it not preposterous—nay, absurd, to suppose that the health of sheep is improved, the vital organs strengthened, and the constitution invigorated, by having the wool soaked in the cold rains of spring and winter for days in succession, then suddenly frozen into a mass by the cold freezing weather, which invariably follows the rains of this season, or by having the snow which falls on their backs and sides, trickling down their bodies as melted by the animal heat. Our sheep are the creatures of art; we must care for them as we have made them. In a state of nature, they are capable of enduring the rigors of the seasons.

The analogy between man and the brutes, is the rampart behind which those conservatives of barbarous customs and habitudes try to entrench themselves. Grant it, for the sake of argument. Take a large mass of people of certain stages of society, where they have been exposed to hardships and exposure—how large a proportion fall a sacrifice to their situation, while some of them have strength of constitution to outlive them. Statistics of our times and of the past, show that the average of life is now nearly double in England, to what it was under Henry VIII. And why? At present, they are better protected and fed. Take all the stages from barbarism to the highest civilization of our own times, and see where population increases in the largest proportion independent of immigration and other extraneous causes? I answer, where man is best sheltered and fed.

I am inclined to treat this absurd hypothesis of "exposure," the more seriously, because we *instinctively* imbibe the impression that exposure is the parent of hardihood, not only as to man but to brutes—whereas reason and experience enlighten our sober second thoughts. G. E. H. *Brownsville, Penn., Feb.,* 1853.

Merits of Different Breeds of Sheep.

It is a commonly admitted fact, that fine wool cannot be produced in New-England with profit. The income from fine wooled sheep consists almost exclusively in the fleece, and that has fallen below the actual cost of production. In the south and west we have a vast territory, in which wool can be afforded at far less than its present prices.

The cost of keeping sheep in New-England cannot be estimated at less than $2, while in the south and west, sheep are pastured during the entire year for a shilling. Against such odds, even the shrewdness of Yankeedom is impotent. We must retire and leave this field of labor to those who have greater natural advantages. Energy and skill may defer the time, yet it must soon come when this class of sheep will as certainly pass away from us, as population and the value of our land shall increase. The importation of fine wooled sheep for cultivation here, is misdirected enterprise and capital. Such animals, no matter how large and beautiful, if they have no recommendation but their wool, they must take the course of empire westward. The increase of population, which is driving out our flocks of fine wooled sheep, requires the cultivation of a race of sheep which, in addition to their fleece, shall furnish our population with food. In this business there is now but little competition, and superior mutton commands extravagant prices. The few who have engaged in the breeding of this class of sheep, are reaping a rich pecuniary harvest. The great majority of farmers are keeping sheep for one and a half dollars per head of annual income. All these ought to know, and so far as my humble efforts can go, they shall know, the important secret that some of us are receiving an annual income of fifteen dollars per head, from sheep costing but a trifle more than theirs, with the exception of the first cost.

With such views, I disposed of all my fine wooled sheep four year since. I had then to select a new stock. The qualities I wished to secure were *large size, good constitution, early maturity, and a disposition to increase in flesh and fat.*

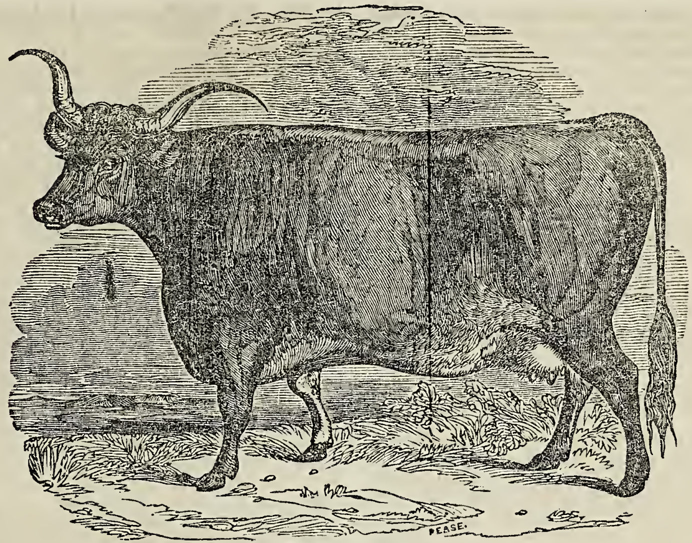
That I might be able to form an intelligent opinion on the merits of different kinds, I spent considerable time in reading, correspondence, and travel, to become acquainted with the best breeds in this country and in Europe. My impressions concerning a few of these varieties, may be of service to others in a similar position. The first which attracted my attention was the then recently imported

French Merino.

This kind of sheep had the desirable qualities of large size and heavy fleece, but there is in this country a prejudice against Merino mutton, which, whether well founded or not, makes it impolitic to breed them for mutton sheep. There is one other obvious objection to them. On opening their fleece it appears full of a fluid which is in the form of small, yellowish shining globules, except near the surface, where it forms with dust, &c., a dark and hard crust. This fluid proves to be a natural and constant excretion from the skin of the animal. Such a drain upon the constitution of any animal, would seem unfavorable to their rapid increase. But this excretion proves on analysis to be still worse than it appears, for it is composed largely of animal fat, which is the very substance we wish to retain. Another circumstance is, that this excretion varies according to the condition of the animal, so that the more highly they are fed, the faster does the fat pass of through the skin. My conclusion was, that this sheep might be useful where wool was the only object, but that it was not desirable as a mutton sheep.

The South Down.

This is a beautiful and very distinct variety, and is



Derby Cow.

The original breed of cattle in Derbyshire, (England) was long-horned. It was valued for the dairy, the cows giving rich milk in considerable quantities. The above cut represents one of the cows, taken from Youatt. The breed was not readily disposed to fatten, and on this account has given way to the Short-horns.

very successfully grown in in this country. When well bred, their constitution is good, the fleece is of medium weight and fineness, they rear fine lambs, and are very superior mutton. This breed has no fault, and but one deficiency—it does not grow large enough to compete with the

LEICESTERS.

This variety of sheep is with many a favorite. There are a few flocks in this country under careful culture, which can scarcely be surpassed. The elegance of their anatominal structure indicates a long course of pure breeding, and perhaps an over degree of refinement. The system called in-and-in breeding, may be carried too far, and cannot be safely practiced but by judicious selections by careful and scientific breeders. Purity may be preserved at the expense of weight of fleece, and strength and vigor of constitution. There remarks are suggested by the appearance of the Leicester sheep in this country.

COTSWOLD.

I have selected this breed of sheep for my own cultivation, as combining more desirable qualities as a mutton sheep, than any other known variety. Its large size removes it from all competition except with the Leicester. Compared with them the appearance of the Cotswold indicates a more recent origin, less refinement of anatomy, less delicacy of style, equal beauty of form, less liability to disease, and that greater vigor of constitution given by the fresh blood of a new and rising race. Some of the best of this breed of sheep, are now known as New-Oxfordshires. I am keeping both varieties, and have yet had no reason to regret my selection.

They are prolific.—After two years of age they usually bring twins. The lambs become fat, and are worth in autumn five dollars to the butcher. Selected for breeding, the lambs sell at from ten to twenty-five dollars each. A gentleman in Canada who had fourteen of this class of sheep, informed me that he one year raised from them twenty-eight lambs, and sold them for seven hundred dollars.

Their wool is profitable.—The wool of this sheep, compared with the Merino, is dry, clean, and less soft. The staple is very long. No other sheep produce so heavy a fleece of pure wool. Some washed fleeces have weighed as high as twenty pounds. A friend in Virginia informs me that he has sheared from the same sheep, over thirty-seven pounds of clean washed wool in two consecutive years. This wool sells at thirty cents per pound. The lightest fleeces are from bearing ewes, and these will average seven pounds each, so that there is no kind of wool selling higher by the fleece.

These sheep are hardy.—I have kept them three years, and have not had a case of disease among them. Their long heavy fleece protects them from cold, and turns off the storms.

They come to early maturity.—They may be fatted with profit when a year old. At two I have seen them fatted with very little grain, and sold to the butcher for eighteen dollars each.

They are disposed to become fat.—It is well known that a given amount of food will produce a far greater amount of valuable fat and flesh on some animals than others. Grain fed to these sheep, produces more pounds of meat than when fed to swine, and the meat sells higher by the pound. The *Genesee Farmer* notices experiments in England on this very point. The food is carefully weighed and fed to the differents kinds of sheep, and the result proves that a given amount of food produces more Cotswold mutton than any other kind.

These sheep obtain a great size—A standing premium of one hundred dollars, for a sheep weighing two hundred pounds in the mutton, has been taken by this breed alone. The wool will pay the expense of keeping until three years of age. They have then been fatted to weigh three hundred pounds, and sold for twenty-five dollars each. It has not been uncommon for this breed of sheep to furnish specimens approaching four hundred pounds, live weight. The two premium sheep of this kind in England, last year, reached the enormous weight of four hundred and twenty and for hundred and ten pounds.

These sheep are well adapted to small farms, and thrive best in small flocks. The farmer of small means will find that with good care, fifteen of these sheep will produce as large an income as one hundred of the common kind, and a much larger profit.

As ornaments to the grounds of gentlemen of wealth and taste, this variety of sheep is unrivaled. They have no taste for roving, never escape from their enclosure, are quiet and harmless among shrubbery and trees, gentle and even affectionate and grateful among children. Their great square forms and fleeces of snowy whiteness, are suggestive of comfort and good cheer, and their broad countenances beam with a quiet contentment and freedom from anxiety, which a wise man might well envy.

To many, the humble occupations and quiet pleasures of rural life, appear insipid, but for myself, I glory in the sentiment which the great bard of nature has placed in the mouth of his shepherd—"I am a true laborer; I earn that I eat, I get that I wear, I owe no man hate, envy no man's happiness, glad of other men's good, content with my harm, and the greatest of my pride is to see my ewes graze, and my lambs play." JOHN T. ANDREW. *West Cornwall, Ct.*

◆

Stocks and Crops in Caledonia County, Vt.

No one interested in farming operations can pass through Caledonia County, without observing every where numerous evidences of the genuine thrift and manly independence of the cultivators or her fertile soil. The true spirit of improvement seems to be hovering over their beautiful farms, counselling them to greater effort for the elevation of their profession to its true rank and dignity. It is a cheering sign of the times that a spirit of inquiry, of experiment and improvement, prevails among the mass of farmers in all parts of the country. They are anxious to know more of the rationale of their business. They are not satisfied with travelling the old paths their ancestors trod, but with a noble enthusiasm, are launching boldly out upon a new, yet promising course of culture, which augurs well of triumphant success. A halo of light is thrown into every department of his business by the revelations of science, inspiring him with a newer life and prompting him to exert a more powerful and energetic action.

The farmers of Caledonia County have caught this spirit. We behold it in their more generously cultivated fields, in their improved stock, and in the almost unparalleled product of their dairies.

It is a peculiar characteristic of this section of Vermont, that equal fertility extends to the tops of the highest hills, affording the very best pasturage in the world. Hence the large quantities of beef, annually turned off to market and fattened at the cheapest rate. The stock of cattle are mostly the improved native. They are esteemed the best for the dairy. In some parts of the County, the Devons have been introduced, and are preferred for working oxen and early beef. There are also some herds of Durhams and Ayershires, which, crossed with the native, produce very fine stock for all purposes.

Ira Brainard, Esq., of Danville, has a pair of steers, four years old, a cross of the Devon with the Durham, which weigh 4,300 lbs. and girt eight feet. They have not had extra keeping till within a few months. Mr. B. is preparing them for the shambles, and we shall again hear a report from them, such as will do honor to the owner and the State.

I mention in this connection, a mammoth yoke of three year old Durham steers, owned by Mr. Daniel Richardson, of Waitsfield, Washington county, the girt of which is seven and a half feet, weight 3800 lbs. These cattle are thought to be the best in Vermont. In size and beauty they are seldom equalled.

Last year, Mr. Brainard raised 216 bushels of oats on two acres. The ground had been heavily manured from the barn-yard, the year previous, and planted with corn and potatoes. It yielded a profitable crop. Six bushels of oats to the acre were sown. Many of the farmers are in favor of heavy seeding with oats; five and six bushels are commonly sown on an acre, where the land is rich and well prepared. Large crops are raised in this County. The average yield per acre is about 60 bushels. The best farmers get from 75 to 100 bushels. Mr. Joel Fletcher, of Lyndon, raised in 1852, 2,000 bushels, worth 42 cents per bushel. His crop of potatoes from 22 acres, amounted to 7,000 bushels, worth 25 cents, to be manufactured into starch. They were the long red variety. He also raised 150 bushels of herds-grass seed, which he sold for $3,30 per bushel. He uses large quantities of muck, mixing it equally with stable manure, and applying it in the spring, at the rate of about 25 cart loads to the acre. Spreads and plows in for potatoes, and the next year follows with oats, and seeds down with herds-grass and clover, using one peck of the former and 10 lbs. of the latter. Mr. F. has a beatiful herd of Devon cattle. He usually winters 100 head. One pair of yearling steers weighed, in Sept. 1852, 2,050 lbs. They followed their dams the first summer, and have had liberal keeping since.

The farmers in this County are beginning to appreciate the value of turneps and carrots for their stock. The largest crop of carrots was raised last year by Mr. J. C. Hodge, of St. Johnsbury. The product on 11 rods of ground, was 110 bushels, or at the rate of 1,760 bushels per acre. The variety was the long orange red. The ground was heavily manured with well rotted stable manure, and plowed in about twelve inches deep. Soil, a black rich mould mixed with gravelly sub-soil. Seed, sown the 1st of May in drills one foot apart, and thinned to four or five inches distant.

Wheat is raised with success upon the higher hills. On the low lands, the rust and wevils destroy the crop. It has been found necessary to sub-soil, in order to get a good return. Many have tried the experiment, and it proved very satisfactory. The average crop is 20 bushels per acre.

Caledonia County has a flourishing Agricultural Society, which creates a spirit of emulation among the farmers, and they vie with each other in attaining the true and most important object of making their farms the most productive with the least expense. W. A. WHITE. *Lancaster, N. H.*

◆

Young Lambs.

To raise a lamb, that's "over the dam,"
Mind what I say, he'll skip and play.

It is a very nice operation to raise a young lamb, after he refuses food, has a cold mouth, stiff neck, &c.

We have been successful in hydropathy on man and animals, contrary to old practice. Put the lamb into a bucket of water, as warm as you can hold your hand without scalding; let him remain there about four minutes, or until all tremor subsides. Then take him out, and wipe him over with a warm cloth or sponge, and if not too far gone, give him a table-spoonful of warm drink. Strong green tea, or ginger tea, adding sugar and milk, or all mixed together, are good. Hot wool blankets should be in readiness, and wound close around him, covering all but his head, from the air; let there be two sets, and change often. As soon as he is so far revived, as to act like eating, give him a tea-spoonful or two of milk, warm from the ewe, or "new cow's milk." As soon as he is hungry, and not before, feed him lightly. Here the great secret lies in feeding and rearing young lambs. We are apt to over feed; this often kills them. Their stomachs are weak, they cannot digest but a little at a time. Therefore feed but little and often at first.

Let us reason—Of what use is an extra quantity of food forced into the stomach, where there is not sufficient gastric juice, the solvent of the food, or other chemical agents, which weak nature has not at command, to dissolve and digest the food lodged there at once?

The stomach acts like the mill, which was so overfed as to clog the wheels. The inoffensive lamb has no other remedy, but premature death. S. W. JEWETT. *Middlebury, Vt., March* 17, 1853.

◆

The care and attention the farmer bestows on his domestic animals is a sure index of his thrift, as well as of the natural kindness of his disposition.

Horn Distemper, Horn Ail, Hollow Horn.

These terms, as every farmer knows, are synonomous. They are used to represent a disease among cattle, which is usually described in the following manner:—

Symptoms.—Coldness of the horn, dullness of the eyes, sluggishness, want of appetite, a disposition to lie down, and sudden and rapid falling off in milk. In severe cases, the animal tosses its head, utters a low moan, at intervals, and exhibits indications of great pain.

These are the most prominent symptoms, but they are such as show themselves only after the disease is seated, and generally after the malady exhibits itself clearly enough to be easily distinguished as above, twenty-four hours decides the point whether the animal lives or dies. Now many diseases in the animal, as well as human species, which are considered sudden and rapid, have incipient stages, which the observing eye can and will detect and ward off, while the careless and negligent leave the matter too long, and often, in consequence, lose a valuable animal.

We wish now to note the incipient stages in horn distemper, a careful attention to which we have never known to fail of warding off the severe form of the disease.

First, then we will say, that horn distemper is *generally*, although by no means *always*, the result of poor keeping and poor care during our long winter; sometimes, however, whole families of cattle are liable to it from hereditary descent.

When the disease is the result of poor keeping, it usually breaks out in the spring, some months or so before time to turn out to pasture, but it sometimes happens that animals of naturally good constitution, though threatened with the distemper, will weather through the foddering season, and after getting out to grass, will even get fat during the summer, but the seeds of disease are within, only waiting an opportunity to break out, which usually happens after the first cold storm in October. Every good farmer should have an eye to his cattle, he should never let a day go by without noticing them. Horn ail may most always be detected in its incipient stages, by observing the following. Some months or more before the breaking out of the disease in its acute form, the bowels of the animal seem looser, the dung is blacker and more fetid than usual, they eye is duller, the animal seems weak when walking, lacks animation and is apt to loiter behind when driven in company with other cattle, sometimes unnatural shivering after drinking takes place. In some cases, drops of water fall occasionally from the eyes, and clots of mucus from the nose.

When any of the above symptoms present themselves, the following remedy should be administered, and here we will say, that we first read of it in the "Practical Farmer," an admirable work published many years ago, and afterwards, some years since, in the Cultivator:

6 table spoonsful Soot;
1 " " Black Pepper;
1 " " Ginger;
1 " " Salt:
3 Eggs, and Indian meal enough to make a stiff batter. Mix all well together, and make it into four balls; give one morning and evening till gone. The four balls will generally effect a cure; should it not do so entirely, repeat the dose. We have seen it used in many cases, and have never known a failure. Even in the severest cases, we have great confidence in this remedy. When this fails, we place little reliance in boring the horns, slitting the tail, smoking the head, and a variety of other remedies often used.

There is no difficulty in administering the above. Some cattle will take the balls from the hand, draw them in with their tongue, and swallow them immediately; if, however, they will not do this, put a pint of meal in a box or manger, cover the ball well with the meal, and while eating the meal, the animal will also swallow the medicine. By this mode of administration, all trouble of tying the creature up by the head, drawing out the tongue, &c., is avoided.

We have known cattle with a constitutional tendency to horn distemper, that have became as tough and hardy as other cattle, by proper attention to the first stages of the disease. Hundreds of cattle are annually lost in the spring, after getting them through the winter, simply for want of vigilence on the part of their owners; and if we can succeed in awakening attention to this important subject, even with a few, we trust we shall not have written in vain. H. C. W. *Putnam Valley.*

Best Sheep.

Messrs. Editors—A correspondent inquires, "What is the best kind of sheep?" I have just received three from abroad, which appear to me to be in some respects superior to any I have before seen. They are the *largest* variety known, and have attained, in England, the enormous weight of over four hundred pounds. For symmetry of form, they are unsurpassed; the flesh is heavily laid on the most valuable parts, and the offal is light. They have great readiness to fatten, and have *been proved*, by actual experiment, to make more *flesh* and *tallow* from a given amount of food, than any other sheep. It has been decided by good judges that it is the best breed of mutton sheep in England. The fleece is heavy. The staple long, white and silky, affords more *clean* wool than any other variety. These sheep are called Improved Cotswolds, or New-Oxfordshires, and I received mine from the flock of John T. Andrew, Esq., of West Cornwall, Conn. Eli L. Holden. *Clarendon, Vt., March* 25, 1853.

◆

Lice on Cows, &c.—A correspondent of the Southern Planter, says:—"I saw in some agricultural work, perhaps your own, that the water in which Irish potatoes have been boiled, if applied to cows, &c., would kill lice upon them. I tried it several times with signal success, and a few days ago, ordered my boy to try it upon my cows, which, at this time of the year, generally are full of ticks; the result of which is, that the vermin have all taken their departure."

Farming in New-Hampshire.

Mr. Hiram Noyes of Lisbon. N. H., has a farm of 300 acres, on what is called Sugar Hill. The soil is a deep, black marl, rather stony. He raises from three to five hundred bushels of wheat annually. He breaks up his sward land in September. In the spring he again plows and harrows well. Sows one and a half bushels of wheat to the acre, and at the same time puts on 100 pounds of plaster per acre. The variety is the Red Bearded and Tea. Average crop from 20 to 25 bushels per acre. In the fall, after harvesting, he draws 25 loads of well rotted barn-yard manure on to an acre—spreads and plows in. The following spring the land is again plowed, and prepared for a crop of potatoes. He plants the "Long John" variety. After the first hoeing he applies half a gill of plaster to each hill. His average crop is three to four hundred bushels per acre. In the three past years, 1850, '51 and '52, Mr. N. sold 11,000 bushels of potatoes to a neghboring starch factory. For 4,200 of these he got 30 cents per bushel. He sold the remainder from 23 to 30 cts. In the above years he reserved about 2,000 bushels for home consumption. His potatoes are entirely free from disease. His beautiful farm in appearance, shows him to be a thorough and successful cultivator; and his large crops, all yielding him a good profit, clearly demonstrate the truth, that by the application of intelligence and practical knowledge to all matters of the farm, the the farmer may arrive to competence and wealth. W. A. W. *Lancaster, N. H.*

Notes for the Month.

The Progressive Farmer: A scientific treatise on Agricultural Chemistry, the Geology of Agriculture; on Plants, Animals, Manures, and Soils. Adapted to Practical Agriculture. By J. A. Nash. New-York, C. M. Saxton—price 50 cents.

A work to embrace all these subjects, within about 220 moderate 12 mo. pages, must of necessity take a somewhat summary view of them; but in the present instance we think the author has been quite successful in condensing a great deal of matter within the small compass he had prescribed for himself. All works on scientific agriculture, and more especially on chemistry and its relations, must partake largely of the nature of *suggestions*, until actual experiment has spoken more decisively. With this view, and for more common use, a plain, condensed treatise of moderate extent, may be more convenient and useful, than one of a larger size and more diffuse character. In some portions of this work, the brevity is too great for one who has no previous knowledge of science; but generally the language and illustrations from practice are simple, plain and easily understood; and the frequent allusions to the farmer's every-day operations render it of more common application in practice than usual in elementary treatises on scientific agriculture. We commend it to young practical farmers, who may wish to go into *the reasons* of their various operations, and to obtain the suggestions of science, as one of the best that has yet appeared, although we should have been glad had more space been devoted to draining, rotation of crops, subsoiling, and pulverization of soils. The analysis of soils, which a few years since was supposed to be the means of ushering in at once an agricultural millennium, the author seems to think a subject for farmers not to meddle much with, and entertains the opinion that there are not twenty men in the *whole world* who can analyze soil "*reliably.*"

Another Important Discovery.—A writer in a late number of the *National Era*, announces a discovery, which promises to equal in importance that of Comstock in "Terra-culture," for which he has been asking Congress, as well as the Legislature of this state, to give him a few hundred thousand dollars, to enable him to reveal it to the public. The discoverer of this new law in vegetable physiology, seems to be as much troubled as poor Comstock was, to ascertain how he can disclose the secret, and at the same time secure "to the discloser, *and those who labor to give it to the public*, an ample reward." But the proprietors of this secret—a discovery vastly more important than that of the use of "the steam engine and the telegraph," because it will cause the potato to grow in a healthy condition, "on hill-tops and by the waysides, and *over the graves of loved ones*, to furnish food for the living, teeming, half-starving millions of earth!!"—have come to the conclusion to sell this great secret to "practical farmers," for the "trifling sum of five dollars!" The editor of the Era, vouches for the integrity of the writer, and in so doing proves only that his effort is to be attributed to ignorance of the investigations which have been made both in Europe and in this country, in relation to the potato rot. The same discovery, announced as having been made by "an obscure farmer of Michigan," so far as we can judge from the tenor of the article, has been proclaimed time and again, and has been as often proved of no avail in preventing the rot.

The Crystal Palace—The building and the arrangements for the World's Fair at New-York, are approaching completion, though it is now conceded that the Fair will not be opened on the first of May, as was anticipated. It is stated that Col. Johnson, Secretary of our State Ag. Society, is to have charge of the Agricultural Department, and Mr. J. E. Holmes of the Machinery. Two better appointments for these places could not have been made.

Large Yield of Carrots.—Mr. J. Winne, of Bethlehem, Albany county, secured a very large crop of carrots, by means of the following treatment. A piece of land measuring 333 feet in length, and 84 in width, about five-eighths of an acre, was plowed in the spring as early as the ground was dry enough, and a dressing of manure from the barn yard turned in. It was then suffered to remain till sometime in May, when it was thoroughly worked over with a cultivator harrow, marked into rows thirteen inches apart, and planted immediately. As soon as the plants were in sight, a little plaster was sprinkled along the rows, which, in addition to its fertilizing effect, was a great assistance in seeing the rows while weeding. They received two more hoeings and weedings, but no other extra care. The crop was dug quite late, and secured by plowing quite close to the rows, and then pulling the carrots by hand. They were put up in long narrow heaps with the tops outward, which not only keeps out the frost, but leaves the tops so that they can be cut in the heap very rapidly and fed green to cattle, horses or sheep, who are very fond of them. The product of the ground cultivated was 730 bushels. The variety was the Long Orange Carrot. The crop was entered for competition at the winter show, but owing to some informality in the statements did not come within the requirements of the Society.

Improved Cattle.—Those who wish to improve their breed of cattle, are referred to the advertisement of L. G. Morris, who, we are glad to perceive, is carrying out the English practice of letting for the season high bred males. In this way a few farmers, by clubbing together, can avail themselves of their use, without the heavy outlay necessary for their purchase.

Importation of Cattle.—Another of the famous Durham bulls, bred by the late Thos. Bates, of Kirkleavington, England, has recently been brought to this country, by Lorilard Spencer, Esq., of Westchester county, N. Y., viz: Duke of Athol, 10.150—sired by 2d Duke of Oxford—dam, Dutchess 54th. He was three years old in Sept. last.

Sale of Poultry.—At a public sale of poultry at the auction room of S. M. Parke, in this city, on the 30th ult., eight pairs of Spanish fowls sold at an average of $4.12½ per pair; and nineteen lots of China fowls, consisting of three each, a cock and two hens, averaged $7.25,—one lot selling as high as $26.

Stone Hill Potatoes.—We are indebted to Mr. D. A. Bulkley, of Williamstown, Mass., for a barrel of these potatoes, which he recommends very highly for quality, productiveness, and freedom from rot. We tried them last year, very much to our satisfaction. They can be procured of Mr. B. by addressing him at Williamstown, Mass.

Chess among Wheat.—Linus Cone, of Troy, Mich., furnishes the Rural New-Yorker with an account of his experiments in eradicating chess from wheat. After many years trial, he has so far reduced the quantity produced from his old fields, that although not entirely clear, he confidently believes the chess would not amount to an ounce in 500 bushels. No chess now grows on low ground where it formerly grew in abundance, even if the wheat should be killed. He proposes as an experiment, that a piece of ground be selected where chess commonly grows, and sow a part with *picked* seed wheat, and leave a part unsowed, and observe the result. He does not state what this will be, but it is evident that if the wheat grows, there will be a much smaller crop of chess with the wheat, than where none has been sown.

Rotation of Crops.—The Michigan Farmer gives a system of rotation practiced by a successful farmer:—He turns under a crop of clover, rolls the sod well to pack down the layer of clover and prevent injury from drouth, and plants with corn; plows in autumn, and leaves the whole to settle till spring; then uses the harrow and roller only, in putting in barley; when this is harvested, one plowing brings the field into the best condition for wheat, in putting in which the harrow or cultivator is again followed by the roller, and a crop of clover succeeds.

United States Ag. Society.—A correspondent sends us a review of the proceedings, at the last annual meeting of this society, which we think it injudicious to publish at present. When the Convention, at which it was organized, was called, we were decidedly in favor of an Agricultural Bureau, under the direction of the Secretary of the Interior, in preference to a voluntary association, believing, with our correspondent, that "a good practical straight-forward man," at the head of such a Bureau, would accomplish much more for the interests of Agricultural, than could be done by any society. Others, eminent for their devotion to the cause, thought differently. They considered the organization of a society the first object to be accomplished, and the first step toward securing the objects we looked for from the organization of an Agricultural Bureau.

The society was organised, and has held its first annual meeting under as favorable circumstances as could have been anticipated, and we heartily wish it success. To carry it, however, into successful operation, will require great prudence and energy, as well as much time and means, on the part of its board of managers. With these, a successful course may be reasonably anticipated; but without them, its failure to accomplish any great good, may be confidently predicted.

Sheep Shearing Festival.—It will be seen, by an advertisement in this paper, that Mr. Bingham, of Cornwall, Vermont, proposes to renew his annual Sheep-Shearing Festival, which is to be held this year, on the first and second days of June, at the well known public house of Mr. Hyde, in Sudbury. We like this plan, as it will afford the public an opportunity to examine the sheep with the fleeces on and off, and to test, by the scales and their own judgment, the weight and quality of the wool.

Canadian Agriculture.—We cannot better set forth the efforts making, at least in some parts of Canada, for the advancement of agricultural improvement, than by giving the following extract of a letter from James Lee, Esq.: "We farmers of Missisquoi County, Canada East, have a good farming county, and try to keep up a spirit of improvement among us, by forming and supporting agricultural societies. We live under a fostering government, who aids us all in its power, by public grants, &c, and *has* done for thirty years back. Could you attend onr annual exhibitions, I doubt not you would be surprised to see what a small county like ours can do, which only contains four townships. We have raised, and in connection with our public money, distributed in premiums from $1,100 to $1,200 each year, for several years back. I shall forward you two acts passed by our Parliament the first part of the present session, for your perusal, which I trust, when in operation, will enable us to extend the benefits of agricultural information, by establishing model farms, agricultural schools, colleges, &c., &c., which must prove an immense benefit to the present and rising generation."

Mulching Potatoes.—Being a disciple of reasonable innovation, I became an easy proselyte to the experiment of mulching potatoes, as performed by Messrs. Somers & Skinner, and quoted by you from the Plough, Loom and Anvil, in your April No. for 1852, page 140. I followed their different methods of planting, and planted by themselves, in three separate fields, the Early Junes, the Mercer and the Moore—the soils all different—each planting yielding the smallest potatoes I ever grew—not over one-tenth large enough for the table. I would ask Messrs. S. & S., for the information of my successors, how they hoed them? I hoed mine with the *pitchfork!* When the thistles attempted the advantage, I inverted the straw *once*, while wet, which was effectual. I would be more general, and detail minutely every particular, but can see no use of more than the result, as any one wishing to try the experiment can turn to the Cultivator as above mentioned. I shall try it again, and hope that those who have, and do, will report through the Cultivator or Country Gentleman. B.

The Vermont State Ag. Society has issued its list of premiums to be awarded at its next Fair, to be held at Montpelier, on the 13th, 14th and 15th days of September next. The premium list is a very large one for a State of its size, amounting to nearly $3,500, and is one of the most complete and best arranged that has fallen under our notice. We are pleased to see that the premiums for horses, are so arranged, as to call out a full exhibition of all the best horses of the State. There are three classes of premiums, especially for Morgan horses, the descendants of "Sherman Morgan," the "Woodbury Morgan," and the "Bullrush Morgan," occupying each a separate class. The fourth class is for crosses between these three branches of the Morgan horse. Competitors for these premiums, must produce pedigrees, showing satisfactorily the blood of both sire and dam of the animals exhibited, in order that the future publications of the society, may furnish records of the blood of desirable Morgan horses. With its liberal list of premiums, and its energetic board of officers, we doubt not the next Fair of this society will equal the most sanguine expectations of its friends, and prove in the highest degree creditable to the State.

Officers of the Society:—President—Frederick Holbrook, Brattleboro'.

Vice Presidents—H. B. Stacy, Burlington, E. Hammond, Middlebury.

Corresponding Sec'y—J. A. Beckwith, Middlebury.

Recording Sec'y—Luther Cross, Montpelier.

Treasurer—John Spalding, Montpelier.

Auditor—E. P. Walton, Montpelier.

Directors—B. B. Newton, St. Albans, Henry Keyes, Newbury, E. B. Chase, Lyndon, J. W. Colburn, Springfield, J. W. Vail, Bennington, Geo. T. Hodges, Rutland, Portus Baxter, Derby.

☞Catalogues of the Cattle to be sold by Col. Sherwood, at Auburn, on the 8th of June next, can be had at this office.

Fine Crop of Carrots.—William Nelson, of Ashtabula county, Ohio, furnishes the Ohio Farmer with a statement of a very successful experiment in raising carrots by high cultivation, at the rate of 2000 bushels per acre, on a small scale. One experiment was made on rich land, unmanured, made mellow a foot in depth, and yielded as above. Another part of the ground was manured in trenches under each drill, at the rate of 12 bushels of manure to the square rod. This was planted at a wet and unfavorable time, and but little of the seed came up, but such carrots as grew, exceeded in size the others by fifty per cent, many being five inches in diameter, and weighing over four pounds. We have long been satisfied, that the cheapest way, by far, to raise carrots, is to expend freely at the outset in enriching and deepening the soil—an expenditure which will will be repaid four-fold in the subsequent product.

Clover Manure for Wheat.—The Michigan Farmer furnishes an experiment, reported by O. Hall, in which a clover crop was turned under deeply towards the close of the summer, and afforded the next year but 12 bushels of wheat per acre, while a naked fallow adjoining, similarly treated in all other respects, yielded 18 bushels. The next year, half of a clover field was plowed during the last half of 6 mo. (June) and the other portion a month and a half later. The former yielded 24 bushels of wheat per acre; the latter but 13 bushels. There are several causes which might operate towards this result, among which is the want of decay in the green crop when plowed late, and the injury it might produce by increasing the effects of drouth. During wet seasons, or on heavy soils, inclining to be too wet, the reverse might take place. The subject is worthy the attention, and the careful and accurate experiments of farmers.

Advertisements.—We hope our readers will not fail to peruse the advertisements given in this sheet. They are all of more or less interest to the farmer who desires to procure the means necessary to enable him to carry on his operations most profitably. For Seed Drills and Broadcast Sowing Machines, see advertisement of P. Seymour, of East Bloomfield, whose machines have been long in use, and have, so far as we have heard, given entire satisfaction—for Ketchum's Mowing Machine, see advertisement of Howard & Co., Buffalo, and for Mowers and Reapers combined, those of Emery & Co., Albany, and Jerome & Ellison, New-York—for Horse Powers and Threshers, those of E. W. Badger, Fly Creek, N. Y., Wheeler, Melick & Co., and Emery & Co., Albany, and J. A. Pitts, Buffalo. Most of these Machines can also be procured at the Ag. Warehouses of R. L. Allen, John Mayher, Longett & Griffing, and G. H. Barr & Co., New-York.

Those wishing to improve their breeds of Domestic Animals, are referred to the advertisements of J. B. Burnett, Syracuse, David Hill, Bridport, Vt., and R. Battell, Norfolk, Conn., for fine Horses—to those of J. M. Sherwood, Auburn, L. G. Morris, Mount Fordham, and W. P. & C. S. Wainwright, for pure bred cattle—to A. L. Bingham, Cornwall, Vt., and Mr. Morris, for Sheep, and to B. V. French, Braintree, Mass., for Suffolk Pigs.

Super-Phosphate of Lime,

OF the best quality, and various other Fertilizers, for sale at the lowest prices

PLOWS, and all other Farming and Gardening Tools, and a large assortment of Field and Garden Seeds, of the best quality.
R. L. ALLEN,
April 12—15—7t—m2t. 189 & 191 Water Street, N. Y.

Super-phosphate of Lime.

IN bags and barrels, made by C. B. DeBurgh, a warranted pure and genuine article, for sale by
GEO. DAVENPORT,
No. 5 Commercial, corner of Chatham-st., Boston,
Agent for the manufacturer, with directions for use.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.
April 7—14—1t—mtf.

Dairy Salt.

THE attention of Dairymen is particularly called to a very superior article of Steam Refined Rock Salt, prepared expressly for the Dairy, at the City Steam Mills, put up in bags of a peck, and one bushel each. For sale by
C. N. BEMENT.
Albany, April, 1853.—14—eo3t—m1t.

A Card to Dairymen.

CLARKE'S EXCELSIOR CHURN is beyond all question, "*the best churn*" *for large dairies*. The two favorite sizes, are $7 00, and $10.00 each. The latter size is suitable for ten to thirty cows, indeed for any large dairy, as one hundred pounds of first rate butter can be produced in it, at three churnings, in less than one hour. It will be delivered, on all paying orders, in Boston, New-York and Buffalo, free of charge for freight. ☞ *Every churn sent out, is warranted to please!* This new and saleable Churn, presents great inducements to capitalists, and manufacturing companies, to purchase State and County rights. For full description, recommendation, &c., apply, at any time, to GEO. B. CLARKE, Patentee, Leonardsville, Madison co., N. Y. May, 1853.
m—1t.*

Foreign Grapes.

THE subscriber has a first rate collection of all the leading varieties of Foreign Grape vines, one and two years old. All have fruited on the place, and are warranted.
P. T. BARNUM.
Iranistan, Bridgeport Conn.—May 1—1t

Fowls for Sale.

THE subscriber, having been engaged for several years in procuring from the most reliable sources, the best imported breeds of fowls, has now on hand choice specimens of the White, Red, and Buff Shanghais, Brahmapootra, Royal Cochin, Black Spanish, Dorking and several varieties of the Pheasant Breeds of Fowls.
V. S. SMITH,
April 7, 1853—14—1t—m2t. Buffalo.

Alb. Agricultural Works, Warehouse, & Seedstore.

SEED GRAINS,
WHEAT,
BARLEY,
OATS,
TIMOTHY, CLOVER,
PEAS, BEANS, &c., &c., and a choice selection of Garden Seeds, warranted fresh and true to name.
EMERY & CO., 369, 371 & 373
April 14—15—2t—m1t. Broadway, Albany, N. Y.

MANURES.

FERTILIZERS of all kinds for sale by the subscribers.

IMPROVED SUPER-PHOSPHATE OF LIME, Superphosphate of Lime—both the above made after the recipe of Prof. Mapes.

PERUVIAN GUANO, Sulphuric Acid, Bone-Dust, Potash Sparlings, Poudrette, Plaster of Paris, &c., &c.
GEO. H. BARR & CO.,
May 1, 1853—1t. 53 Courtland street, N. Y.

Stowell's Evergreen Corn,

RAISED by Prof. J. J. Mapes. For the superiority of this Corn over all other varieties, see Vols. 3 and 4 of the Working Farmer. Price $1 per quart.
LONGETT & GRIFFING,
15—4t—m1t. No. 25 Cliff-street, New-York.

United States Agricultural Warehouseand Seedstore.

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

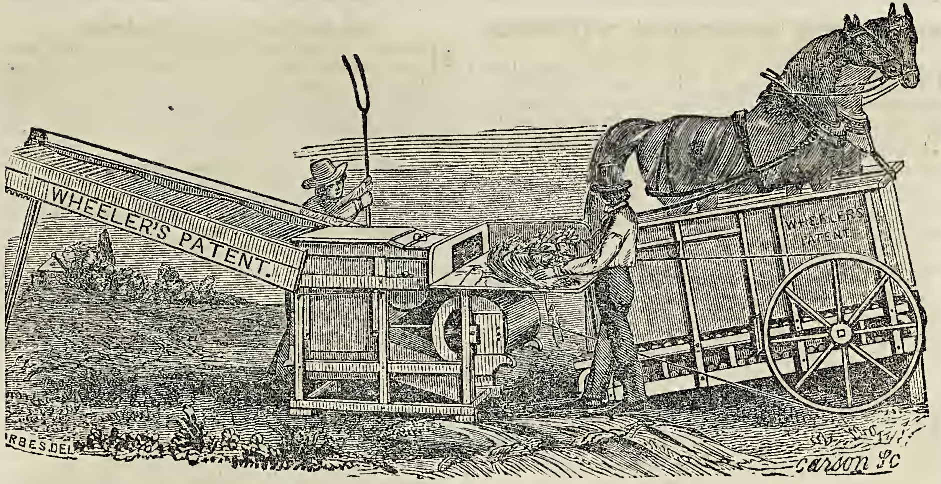
We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine—also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, arm or garden.
JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers. Jan 1, 1853—m&wtf

A Virginia Farm For Sale.

PLEASANTLY situated in Fairfax county, 13 miles from Alexandria, 16 miles from Washington, and about 1½ miles from Lee station, on the Alexandria and Orange railroad, a farm of 218 acres, about one-half intervale or bottom land, the residue a gentle swell of upland. It is admirably adapted to grazing, and is well watered with two small streams of never failing water, and is capable of producing excellent crops of corn, wheat, potatoes, grass, &c. The location is healthy, and the markets as good as any in this country. On the premises is a young and thrifty orchard of 125 apple trees, 25 peach trees, pear, cherry trees, &c. Also a timber lot of 20 acres, (hard-wood,) and 50 acres second growth pine, which will yield 40 cords per acre, worth $2 per cord at the railroad, 1½ miles distant. There is a small dwelling house and other buildings on the farm The fences are tolerable, 2000 new chestnut rails having been added to the fences within two years. Price $10 per acre; one half in hand, the balance in two years. Persons desirous of examining the premises, will call upon Ansel Whedon, Agent, near Lee station. For further information, address
A. & O. WHEDON.
March 18—w2—mtf. West Pawlet, Vt.



NEW-YORK STATE AGRICULTURAL WORKS,

BY WHEELER, MELICK & CO., ALBANY, N. Y.

IN presenting our annual business card to the Farming Public, we take occasion to express our thanks to former customers for an increased patronage, which has made a further extension of our manufacturing facilities necessary.

As the limits of an advertisement will not admit of an explanation of all the advantages of our Machines, and as most of them are so well known as to need no commendation, we will make this statement brief, and for more detailed information we refer to our printed Catalogue, which will be sent by mail, *postage free*, when requested.

Wheeler's Patent Railway Chain Horse Powers.

These Powers (represented in the above cut,) are made for either one or two horses, and their superior merits, in point of durability, strength and ease of running, are fully established; while their compactness and simplicity, are highly appreciated by those who have tried them. *Several thousands* of them are in use, some of which (made 12 years ago,) have threshed over 100,000 bushels. About 950 of them were sold by us and our agents, the past season, (a larger number than in any previous year,) thus proving their increasing popularity.

Wheeler's Patent Combined Thresher and Winnower.

This Machine (also represented in the cut,) is a new invention. It was got out two years ago, after a long series of experiments resulting in a machine which performs the *three operations of Threshing, Separating and Winnowing*, with as much dispatch, and as few hands and horses as are required to thresh and separate only with other machines, and although designed for so complicated work, it is yet a model of simplicity and compactness. The entire running parts are driven by the main belts, and one small band. We have no doubt it is the most perfect machine in use for Threshing and Winnowing. Driven by two horses, they thresh and clean from 150 to 200 bushels of wheat, or twice that quantity of oats per day. We give below letters from gentlemen, who have the machines in use, showing the estimation in which they are held, premising that these two are about an average of over 100 similiar letters, which we can show.

Letter from E. Swarthout, Esq., *dated Exeter, Luzerne Co., Pa., March 22d*, 1853.

Messrs. Wheeler, Melick & Co.

Gentlemen —I am happy to say your Thresher and Winnower far exceeds my expectations—it can not be beat in this section. I have threshed 43 bushels of wheat in 60 minutes by the watch. It was good clean wheat and short straw, and was taken to market from the machine as fast as threshed; and so it has been with most of the wheat I have threshed. All that is free from chess and cockle I can make fit for market as it comes from the machine. I have threshed 90 bushels of oats in an hour. I think, on the average, of Wheat, 25 to 30, and Oats, 60 to 70 bushels per hour. I have threshed between 5,000 and 6,000 bushels in all since I got the machine, which was not till the middle of December, and so late I feared the 4 horse powers and 8 horse cleaners had got all the work done, but I soon had plenty. The workmanship of the machine is the best I ever saw.

Yours, &c., E. SWARTHOUT.

Letter from W. C. Northrup, Esq., *Manlius, Ononaaga County, N. Y.*

Respected Gents:—Having tried your Winnower to our satisfaction, we are glad to say we like it much. We first tried it on Soles Wheat, and it worked to a charm; cleaned it as well as any Fanning Mill the first time, and threshing from 20 to 25 bushels per hour. We then set up at another barn for Oats, and threshed from 50 to 60 bushels per hour. Oats were good. It works to a charm in Barley; threshes as fast as we can put it through the Machine, but have not tried it *per hour*. It works well in Buckwheat, when dry, and in Timothy. Your Machine is much liked in this place, both for threshing and *saving* Grain. It takes the preference of the 8 Horse Machines. Yours, very respectfully,

W. C. NORTHRUP.

Wheeler's Overshot Thresher and Separator.

This Machine is also our own invention. Driven by our Double Power, it threshes and separates from the straw from 150 to 200 bushels of Wheat, or twice as much Oats, per day. For the Single or One Horse Power we make a smaller Thresher and Separator, which threshes from 75 to 100 bushels of Wheat per day. The small Machine is adapted to moderate sized farms, and as the Single Power is sufficient for sawing wood, churning, cutting stalks, straw, &c., and driving almost every kind of Machine used by Farmers, and is capable, by changing Horses and elevating the Power, properly, of threshing much faster than we stated above, it is a very popular Machine in some sections.

☞ All our Machines are *Warranted* to give entire satisfaction, or they may be returned at the expiration of a reasonable time for trial.

PRICES.

For Double, or Two Horse Power, Thresher and Separator, including belts, wrenches, oil-cans, complete,	$150 00
Double Power alone, including belt	115 00
Do. without belt	110 00
Double Thresher and Separator, alone	37 50
Single, or One Horse Power, Thresher and Separator, including belts, oil-cans and wrenches, complete	123 00
Single Power, alone, including belt	88 00
Do without belt	83 00
Single Thresher and Separator, alone	35 00
Clover Hullers	30 00
Straw and Stalk Cutters, for Horse Powers	30 00
Circular Saw Mill, with 24 inch Saw	35 00
One Horse Power, without band wheel	78 00
Churn Gearing	12 00
Band Wheel	5 00
Band for Power	5 00
Double Power, with Combined Thresher and Winnower, including belts, wrenches, &c.	235 00
Combined Thresher and Winnower, alone	120 00

Orders are solicited, and will be promptly filled. Address,

WHEELER, MELICK & Co.,
Albany, N. Y.

May 1, 1852—m1t.

NORTH RIVER AGRICULTURAL WAREHOUSE.

No. 53 Courtland Street, New York.

GEOGE H. BARR & CO. invite the attention of Farmers, Planters and others, to their large and varied assortment of Agricultural Implements, Manures, Seeds, &c., &c., all of which will be furnished at the lowest prices. Their assortment includes

PLOWS—All the improved kinds by the most approved makers.

HORSE POWERS—Of all kinds and sizes, with and without Thrashers, &c.

CORN SHELLERS—All the approved kinds, and some of recent introduction.

STRAW CUTTERS—Of all sizes and kinds, for hand and horse-power.

CORN AND COB CRUSHERS—Of all kinds and sizes.

FANNING MILLS, Cultivators, Harrows, Agricultural Barometers, Churns, of all the approved kinds, Rakes, Hoes, Forks, and a general assortment of Horticultural and Garden tools. May 1, 1853—1t.

Albany Tile Works,

Corner Patroon and Knox Streets, Albany, N. Y.

DRAIN TILE of the following descriptions and prices, suitable for land drainage, always on hand, in large or small quantities, of the first quality, delivered at the Docks and Railroad Depots free of cartage.

Horse Shoe Tile.

4½ inch calibre, $18 per 1000 feet.
3½ " " $15 "
2½ " " $12 "

Sole Tile or Pipe.

3 inches calibre, $18 per 1000 feet.
2 " " $12 "

Horse Shoe Hand Tile. 8 inches calibre, for drains around dwellings, at $8 per 100 feet. Sole Tile, 4 inch calibre, for sink drains, at $4 per 100 feet, 9 and 6 inch square, polished face. Floor Tile, less than one-fourth the cost of marble, for basement floors and cellar pavements, 9 and 6 inch square. Bakers' Tile, for oven bottoms. Orders from a distance will receive prompt attention A. S. BABCOCK.

Albany, Ap.il 14. 1853—16—13t—e6m.

SEEDS.

THE undersigned being aware of the strong prejudice existing 'among Market Gardeners and others, relation in to seeds as usually sold by Agricultural Warehouses, have engaged the services of Mr. James Hogg, so long known to the public as a competent Seedsman, and have placed this department of their business under his control. They have also made arrangements with Prof. Mapes, and others engaged in seed raising, to furnish them with an assortment of the choicest seeds. Their Foreign and California arrangement will ensure, in addition to garden seeds, a fine assortment of Bulbs, Flower Seeds, &c., &c.

GEO. H. BARR & CO.,
North River Agricultural Warehouse,
May 1, 1853—1t. 53 Courtland street, N. Y.

PROUTY & MEARS' PLOW.

A LARGE assortment of these celebrated Plows can be found at the North River Agricultural Warehouse and Seed Store, 53 Courtlandt street, New York.

May 1, 1853 1t GEO. H. BARR & CO.

Imported Horse Consternation.

THIS thorough bred horse has been exhibited repeatedly at the Fairs of the New-York State Agricultural Society, and by the unanimous voice of every committee that has viewed him, has been pronounced the best thorough bred horse that ever passed under their inspection. His pedigree will be found complete in Derby & Miller's edition of Youatt, and can be confirmed in every particular by reference to breeder's certificates, the English racing calendar, and English Stud Book now in possession of his owner.

His stock has been proved in Oneida county, where some of his colts are four and five years old—and any person may be satisfied of their great superiority by inquiring of almost any farmer, or horseman in Rome, Lee, or Western.

He will stand the coming season, as heretofore, at the farm of the subscriber, two miles west of Syracuse, and adjoining the village of Geddes.

TERMS—Ten dollars the season, and fifteen dollars to insure. The money to be paid in advance in all cases. When a mare is insured and left at the farm, or regularly returned to the horse until the groom is satisfied that she is in foal, a receipt will be given, promising to refund the money in case the mare was not in foal.

Pasturage furnished at three shillings per week. All mares at the risk of the owner in all respects. J. B. BURNET.

Syracuse, May 1, 1853—m3t.

India-Rubber Gloves for Gardening,

HOUSE-CLEANING, driving, or any out-of-door work that soils the hands. They are made all lengths, to protect the rists and arms from exposure, and by wearing, make the hands soft and white. LADIES' BLEACHING MITTS may be worn while sewing or sleeping. LADIES' DRESS PROTECTORS, to prevent the soiling of dresses by perspiration under the arms.

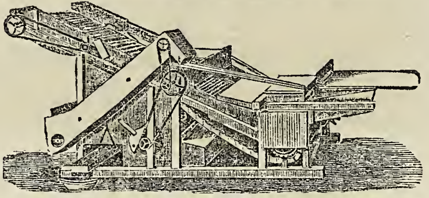
For sale by Bowen & McNamee, New-York; Norcross & Towne, Boston; Wilcox, Billings & Co., Philadelphia; Falconer & Haskill, Baltimore; H. W. Shiffer, Charleston; Gill & Brother, St. Louis; Bart & Hickcox, Cincinnati; and by all Rubber dealers in the Union.

Sold at retail by country merchants generally.

April 12—m3t.*

Agricultural Implement Manufactory,

Corner of Carolina and Third-streets, Buffalo, N. Y.



PITTS' PATENT SEPARATOR——IMPROVED DOUBLE PINION HORSE POWER—PITTS' CORN AND COB MILL, &c.

I HEREBY give notice, that since the extension of the Patent right on my machinery for Threshing and cleaning grain, I have removed to Buffalo, N. Y., where I have permanently located, and erected a large establishment for the future manufacture of the above machines.

The Separator has been enlarged, improved, and rendered more permanent and durable in all its parts—while the Horse Power, for strength, ease, durability, and cheapness of repair, is not surpassed by any in the United States. This Power is warranted to stand the full strength of eight horses, also to give as much effective or useful power when driven by one or two horses, as any other Horse Power, whether constructed on the endless chain or lever principle.

It was put on trial at the great exhibition of Horse Powers and Threshing Machines, at Geneva, in July last, 1852, where it received the New-York State Agricultural Society's first premium "*for the best Horse Power for general purposes.*"

The Separator, at the same trial, also received the Society's first premium. My machines will thresh and clean from three to five hundred bushels of wheat per day, and other grain in proportion.

Two hundred of the above machines are for sale at the Agricultural Works of the subscriber, in this city, all warranted to be a better article than can be purchased at any other shop, and if they do not prove on trial to be so, I will take them off the hands of the purchasers, at the price they may pay me for them

I further notify all persons, who are purchasing Horse Powers and Separators to be used in California or Oregon, that I will hold them accountable for any infringement of the rights secured to me by letters patent in the above machines, as I am manufacturing a Horse Power and Separator expressly designed for that section.

All orders for the above machines, hereafter, addressed to the subscriber, will receive prompt attention

JOHN A. PITTS, Buffalo, N. Y.

April 14—16—1am—e6m

The Original Black Hawk.

THIS celebrated horse will stand this season at the stable of the subscriber, in Bridport, Addison County, Vermont.

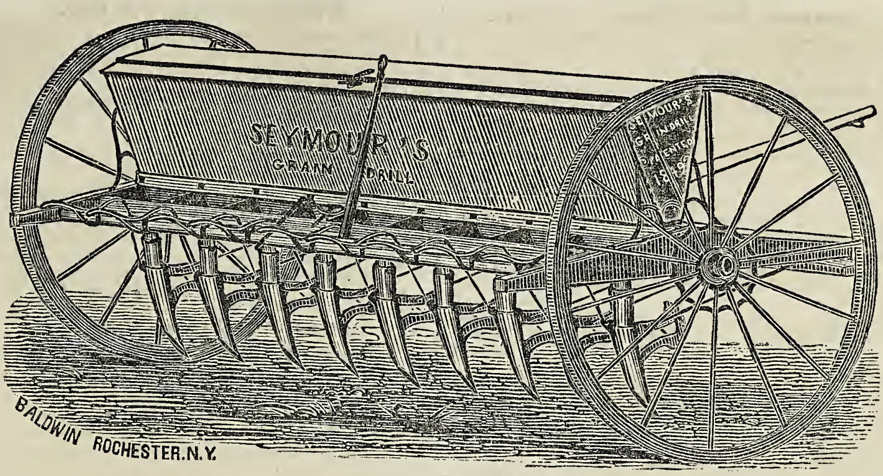
To the Patrons of Black Hawk.—It is proposed by the owner, that the horse shall serve fifty mares this season—and those who would like to secure the services of the horse, will please send to the agent their names, (by letter or otherwise,) as those sending first, will be first served.

Good keeping will be provided for mares from a distance—and all *accidents, escapes and thefts*, will be at the risk of the owner.

N. B—Terms for the use of said horse will be, for the *season*, $50, payable in cash or satisfactory notes on demand, with interest; and all demands for *past services* of *Black Hawk* and *Post Boy Morgan*, must be immediately paid to David Hill, who is alone authorised to settle the same.

DAVID HILL, Agent.

Bridport, Addison Co., Vt., May 1, 1853—3t.



SEYMOUR'S GRAIN DRILL.

THIS Machine has been manufactured several years by the inventor, also by others, and sold to many very intelligent grain growers in many parts of the United States, and it has thus far fully sustained the character claimed for it, namely: That it is better adapted to the purposes for which it is intended, and for which a Grain Drill is wanted, than any other which has been tested in our country, being convenient for sowing all grain and seed, from peas, corn and cotton, to grass seed, *either broadcast or in drills*; and fine fertilizers, such as Lime, Plaster, Salt, Ashes, Bone-Dust, Guano, &c., may be mixed with the grain, if desired. These fertilizers may also be sown broadcast by this machine.

The machinery is remarkably simple, permanent, and easily kept in repair, and all the parts are so clearly presented to the view of the operator, that he can readily see if any thing is not correct; and the grain falls from the seed box to the tubes, (a space of several inches,) in full view, so that in passing over the field, he may be constantly *assured* that the seed is deposited as is designed. The usual size is made with nine teeth, eight inches apart; but any other size, and teeth any other distance apart, can be made to order. The teeth are all placed in one rank, unless ordered to be put in two ranks. It is believed by those who have made experiments, and given the subject their careful attention, that the evils caused by lumps, stones, &c., being thrown by the teeth in the hind rank into the furrows made by the teeth in the front rank, are, in most cases, far greater than the advantages gained. This fact has induced the inventor to construct his double-ranked drill so that all the teeth can be placed in one rank, at pleasure, thus obviating, in this drill, the objection to all other two-ranked drills. The price of the drill, with teeth in two ranks, is ten dollars higher than those with teeth in but one rank. Several hundred farmers have these drills in operation, to all of whom reference is given, to learn whether they sustain their character.

The first premium has been awarded to this machine, at every fair of the New-York State Agricultural Society, since its first introduction in 1849, including the highest prize and diploma at the great trial of implements, made by this Society, at Geneva, in July, 1852.

RECOMMENDATIONS.

Mr. P. Seymour—Dear Sir:—You ask for my opinion with regard to the Wheat Drill I purchased of you this fall. Without specifying particulars, I would express my unqualified approbation of it over that of any other which I have seen in use. I am somewhat enthusiastic on the subject of drilling, believing it will soon be universally adopted by farmers. I would not willingly disparage the patents of other individuals. With great respect, yours, &c., CALVIN SPERRY.

Mr. Seymour—Sir:—With the Grain Drill which I purchased from you this season, my son, a lad 16 years of age, has put in about 50 acres of wheat for me, and with some of it about a bushel and a half per acre of ashes and hen dung was mixed, and all to my entire satisfaction, and I must say I prefer it to any I have ever seen. IRA R. PECK.

I have examined several certificates in the hands of Mr. Seymour, in favor of his Grain Drill, one of them from Ira R. Peck. I am personally acquainted with Mr. Peck. His statements can be fully relied on. The other certificates, I have no doubt, are from equally reliable sources. I have myself heard the drill highly spoken of, by farmers who have used it; and have also seen it in operation, and believe it to be at least one of the very best in use. I was present at the State Fair in September last, where the first premium was awarded to Mr. Seymour, for his drill. I have the confidence that any statement which Mr. Seymour would be likely to make in regard to the drill, would be strictly true.

ISAAC W. MITCHELL,
East Bloomfield, Feb. 5, 1850. Justice of the Peace.

Mr. Seymour—Dear Sir:—The eleven-tooth drill you exhibited at the Ontario County Fair last fall, and sold to me, I have fairly tested, in putting in my spring crops, and find it works admirably, and answers my fullest expectations. I have drilled in 70 bushels of oats, and as much barley, and my buckwheat, which are now up, and all growing finely. Although the drill has eleven teeth, I do not think it any too large for a common team, and it is wide enough to put in three rows of corn at once. R. STEPHENS.

Hopewell, July 5, 1852.

Mr. Seymour—The drill I purchased of you last season, was used to sow about one hundred acres. It does its work correctly; is convenient, and easily managed; can be varied, by a single motion of the lever, to any quantity per acre; performs equally well up or down hill, or on sideling land, and saved for me half a bushel of seed per acre. I do not consider the drill injured by use to the amount of fifty cents, and I would not be deprived of so valuable an implement for three times its cost. Richmond, Ontario co., 1851.

PETER P. BARNARD.

I fully concur in the above. PHILIP REED.

☞Many other Testimonials as to the utility and great saving by the use of these Machines, have been received, but the above are deemed sufficient.

Seymour's Broad-Cast Sowing Machine.

This Machine is well known in Western N. Y., and is universally acknowledged to be the best implement in our country, for the purposes for which it is intended. It sows correctly all kinds of grain, (and any desired quantity per acre,) from Peas to Grass Seed—including Wheat, Rye, Oats, Barley, Buckwheat, Rice, Hemp, Flax, Clover and Timothy Seed. Also, Plaster, Lime, Salt, Ashes, Bone-Dust, &c., &c. It is capable of dusting every inch of ground on an acre of land with less than a half bushel of Plaster, and thirty or forty bushels of Lime may be thus evenly applied to the same amount of land, if desired. *It sows ten feet wide, or may be made narrower to order.* This machine has been much improved by substituting iron, in several important parts, in the place of wood, making it a very durable article. It has received the highest recommendations from hundreds of the best Farmers in our country, and eleven times has the highest premium been awarded to this machine by different Agricultural Societies, at so many annual Fairs of said Societies.

☞All orders promptly attended to.

Those who would order any of these machines, are requested to send their orders early, and give all the time possible, before they require them to be ready. Address

C. SEYMOUR, Manufacturer,
or P. SEYMOUR, Patentee,
May 1, 1853. East Bloomfield, Ontario Co., N. Y.

Thorough Bred Devons For Sale.

THE undersigned offer for sale the followlng:—

BULLS.—1st. "*Uncas*,"—calved March 19th, 1851. 1st prize at the show of the American Institute, 1852. Sire "Megunticook;" grand-sire, "Prince Albert," (102); dam, "Nonpareille, by Lord Lynedock."

2d. "*Red Jacket*"—calved May 5th, 1852. 1st prize as calf at show of American Institute, 1852. Sire, "Megunticook;" grand-sire, "Prince Albert," (102); dam, "Meadow Lilly," by "Baronet," (6); g. d. "Helena."

3d. "*Osceola*"—calved September 11th, 1852. Sire, "May boy," (71); grand-sire, "Duke of York," (37); dam, "Moss-rose," by "Duke of York," (37); g. d. "Nonpareille," by "Lord Lynedock."

4th. "*Dacotah*"—calved October 29th, 1852. Sire, "May-boy," (71); grand sire, "Duke of York," (37); dam, "Red-bud," by "Megunticook;" g. d. "Nonpareille," by Lord Lynedock.

HEIFERS.—1st. "*Rose*"—calved October, 1849; bred by Mr. R. C. Gapper, Canada West. Sire, "Major;" grand-sire, "Billy;" dam, "Cherry," by "Billy;" grand-dam, "Beauty."

2d. "*Gazelle*"—calved October, 1850; bred by Mr. R. C. Gapper, C. W. Sire, "Rob Roy;" grand-sire, "Santa-Anna;" dam, "Cherry," by "Billy;" g. d. "Beauty."

These animals are of the best blood to be found in England. "Megunticook," "May-boy." and "Nonparcille," having been imported from the herd of George Turner, Esq., and "Helena," from that of James Quartly, Esq., by ourselves; while "Billy" and "Beauty," were imported by Mr. Gapper, from that of James Davy.

With the rest of our herd, they may be seen at all times, on our farm, 3 miles from the Rhinebeck station of Hudson River Railroad.

The figures in brackets refer to the English Herd Book.—Animals delivered, free of expense, in Albany or New-York.

W. P. & C. S. WAINWRIGHT.

Rhinebeck, Dutchess co.. N. Y.—March 1—m3t

Dederick's Patent Twin Lever and Toggle Joint Hay and Cotton Press.

THIS Press has received the First Premium of the New-York State Ag. Society at every Fair at which it has been exhibited, and was awarded a *Silver Medal* as the best Hay Press, at the late Fair of said Society, held at Utica in September last.

The subscriber is manufacturing his celebrated presses at Albany, N. Y., but finding it impossible to supply the demand, will sell his interest by County or State rights, on the most reasonable terms. They are constructed to be used vertically as a stationary press, or horizontally as a portable press. My portable press embraces recent and very novel improvements. It is operated horizontally, and is 12 feet in length, 3 feet in width, and 5 feet high, and capable of packing in a bale 4 feet long, and the usual width, 300 lbs of hay. Whole weight of press 1800 lbs. I am the sole inventor of a horizontal Press, pressing either from one or both ends of the box; and to avoid impositions upon the public, no person is authorised by me to manufacture my presses, and sell or use my inventions, without a certificate of sale or agency.

L. DEDERICK, 58 Bleeker St.

March 17—11—1t—m1t. Albany, N. Y.

The Lodi Manufacturing Company

OFFER their Poudrette this season at their usual rates, viz: One barrel, $2.00—2 barrels, $3.50—3 barrels, $5.00—5 barrels, $8.00—6 barrels, $9.50, and any amount over 6 barrels $1 50 per barrel. Delivered free of cartage or other expense, on board of vessel or railroad, in the city of New-York. ☞ A small trial requested.

This article is so well known, and so universally approved of as a manure for corn and garden vegetables, that an extended advertisement is scarcely necessary. The Company will send free of cost, to any one wishing further information, a pamphlet containing instructions for use, &c.—also certificates from Hon. Daniel Webster, A. J. Downing, and others, together with other interesting matter. Orders sent by mail, enclosing money, will be promptly acknowledged. All communications must be post-paid, and addressed to the "Lodi Manufacturing Company, New-York," office 74 Cortland Street. Jan. 1—m5.w5t

---

White Shanghai Fowls.—$10 per pair.

EGGS for hatching, from fowls of the above named breed, will be carefully packed, and delivered to any Express in Boston, by addressing, (post-paid,) JOSEPH S. HILDRETH, 51 Court St., Boston, Mass.—$2 per dozen.

N. B—The subscriber's fowls were bred from the stock of Dr Eben Wright, that have taken the lead at every exhibition where they were present. March 17—m2t.

Fowls and Eggs For Sale.

THE subscriber has yet a few choice pairs of the following varieties to dispose of. Cochin Chinas, Grey Shanghai, Buff do. of Perley stock, Buff do. of Marsh stock, Black do, White do. Golden Poland, Silver do. Bolton Greys and Java Bantams. Also, Eggs of all the above varieties. Also, Bremen Geese. E. E. PLATT.

Albany, April 1, 1853.—2t.

Keeping Eggs Fresh.

TO any person that will send me One Dollar. (post-paid,) and their written promise not to reveal it to others, I will send a Recipe, with full directions, by which I have kept eggs perfectly fresh for a year. The cost of material is but a trifle. No recipe will be given without the promise not to reveal it, accompanies the money. F. H. WILLIAMS,

April 1—tf Box 814, Syracuse, N. Y

Evergreen and Deciduous Trees.

THE subscriber is prepared to furnish to order, American Arbor Vitæ, American Larch, or Hackmatack, Silver Fir, Red and Black Spruce, American Hemlock and White Pine.

Also Elm, Maple, Birch, Beech, Ash, and High Cranberries, at very low prices—6 inches to 6 feet high—faithfully taken up and packed, so as to bear rough handling, and go to any of the Western and Southern states—from Boston, by railroad and boats. For terms, &c., address, post-paid,

WM. MANN, Bangor, Me.

Feb. 10, 1853—m3t.

Black Hawk Horse Raven.

THIS much admired horse, will stand at the stable of the subscriber, the coming season. Terms $10 the season. Good pasture provided at a reasonable price.

ROBBINS BATTELL.

Norfolk, Conn., April 1, 1853.—2t

Super-Phosphate of Lime.

THIS extraordinary fertilizer, the effects of which as a manure and general assistant to soils, has proved itself invaluable to the agriculturist. This most important constituent of the soil is being daily removed and taken up by plants in solution, and unless such substance be returned, fertility must decrease, and land become poor. Its promoting and pushing power of growth, in giving strength to plants while in their young and tender state, fortifying them for early maturity, and enriching qualities, excells over all other manures. It is some ten *years* since its first introduction in England, where also a patent right was granted the first *maker* after the experiment *was* proved of its magic effects on land. The progressive high repute of its properties has caused the demand each year to increase, and at the present time some thousands of *tons* are annually sold to the farmers. The subscriber has had much experience in the manufacture of this manure in Europe, which leads him to suppose he stands unequalled by any other more able competitor. Some considerable quantities were disposed of last season, the beneficial result of which *has caused* all that watched its *power* to send orders for delivery in the coming spring. Being in a perfect powder, it is at once easy in handling, may be *sown* with seed, broadcast, or drilled in. To prevent deception, henceforward all bags or other packages will be branded with the maker's name. It is on sale at the following agricultural warehouses in New-York.

Longett & Griffing, 25 Cliff Street, N. Y., and R. L. Allen, late A. B. Allen's, 189 Water Street. N. Y., where purchasers may be sure of obtaining a chemically pure and genuine article. Enquire for De Burgh's No. 1 Super-Phosphate of Lime. March 1.—m3t.

To Flax Growers.

THE subscriber has invented and builds to order, a FLAX MACHINE, which, attended by two hands, is guaranteed to dress from three hundred to four hundred and fifty pounds of flax per day. The saving in labor and tow, by comparison, is considered equivalent to the cost of dressing flax by the best common machinery, used in this country and Europe. The new machine is made with care, to secure strength and durability, and can be run at a speed which requires more than two hands to attend it. Unrotted flax straw can be dressed by it. It can be driven by horse power or otherwise; and, being portable, can be sent any distance. For the present, the price of the machine complete, is $400. Those who wish to obtain it in season to begin operations next autumn, will do well to apply soon.

S. A. CLEMENS.

Springfield, Mass., March 9, 1853.—mtf.

Sale of Short Horned Cattle.

I WILL sell by Auction, at my residence, on Wednesday, 8th June next, at 1 o'clock P. M., about Thirty thorough bred Short horned Cattle. About twenty of them are Cows and Heifers, the remainder young Bulls. Nearly every animal is the produce of the Imported Bull "Yorkshireman" and 3d "Duke of Cambridge," bred by the late Thomas Bates' Esq., of Kirkleavington, England, and "Earl of Seaham" and 'Vane Tempest," bred by John Stephenson, Esq., of Durham, England, and are of his famous Princes family.

The upset prices of these animals will be from $150 to $300, as to age, &c., &c.

I will also offer the above named Imported Bull, "Vane Tempest,"—his upset price is $1000.

TERMS—Cash, or satisfactory notes at three months, payable at the Bank of Auburn, with interest.

I will also have for sale at that time a few South Down Rams and Suffolk Pigs.

Catalogues will be ready about 15th March next, and will be found with

A. B. Allen, Esq., 89 Water street, New York.
Sanford Howard, Esq., Cultivator office, Boston.
Luther Tucker, Esq., and B. P. Johnson, Esq., Albany.
L. F. Allen. Esq., Black Rock.
M. B. Bateman, Esq., Columbus, Ohio.
W. T. Dennis, Esq., Richmond, Indiana, and with the subscriber. J. M. SHERWOOD.

Auburn, N. Y., Feb. 24—9—e.o.m—m.

Pure Bred Male Stock, at Private Sale,

At Mount Fordham, Westchester county, 11 miles from the City Hall, New-York.

I WILL sell and let from 10 to 12 Short Horned bulls and bull-calves, 4 Devon bulls and bull-calves, and from 12 to 15 Southdown Rams. The annual sale by auction, will be omitted this year, as I wish to reserve all the females, having recently purchased another farm, to enable me to increase my breeding establishment. My Hog stock, including all my spring litters, are engaged. Catalogues, with full description and Pedigrees of above bulls, and Southdown Rams, with the prices attached, can be obtained by the 15th April next, from the subscriber, or at any of the principal Agricultural stores, or from the Editors of the principal Agricultural Journals. L. G. MORRIS.

March 23d, 1853,—14, 18,22—m2t.

A. L. Bingham's 3d Annual Sheep-Shearing Festival.

THE undersigned gives notice, that he will hold his Third Annual Sheep Shearing Festival, at the well known resort of James K. Hyde, in Sudbury, Rutland county, Vt., on the 1st and 2d days of June next, commencing at 10 o'clock.

He proposes to shear publicly, from fifty to one hundred French Merinos Ewes, with a view to enable all interested in this branch of production, to see and judge for themselves of the weight and value of these sheep compared with others. All Wool Growers and Manufacturers interested, are respectfully invited to attend.

Several very superior Bucks and Ewes of the best French importations and stock, will be on exhibition, and for sale.—A number of gentlemen, largely interested in the celbrated Black Hawk and other Morgan horses, have signified their intention to avail themselves of the occasion to exhibit a splendid collection of the best horses in Vermont.

A. L. BINGHAM.

West Cornwall, Vt., March 14, 1853.—2t

Agricultural Implements.

STRAW AND STALK CUTTERS—of all patterns.
CORN MILLS—both of Iron and Burr Stone.
CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.
ROAD SCRAPERS—of several patterns.
FANNING MILLS—of all the best makers.
SAUSAGE STUFFERS AND CUTTERS—of all patterns.
VEGETABLE OR ROOT CUTTERS—of approved kinds.
CORN SHELLERS—for hand and horse power.
VEGETABLE BOILERS—of Mott's and Bent's patterns.
GARDEN AND WHEEL BARROWS—of iron and wood.
HAY AND COTTON PRESSES—Bullock's patent
BRICK MACHINES—of Hall's and other makers.
WAGONS AND CARTS.
PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam PLOWS—Eagle, Massachusetts make, and Minor & Hortons.

For sale at the State Agricultural Warehouse, No. 25 Cliff Street, New-York. Nov. 1—tf.

Suffolk Pigs,

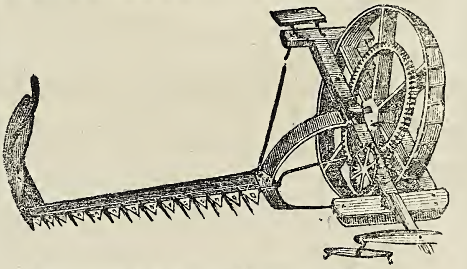
OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y. Braintree, Mass.

Manures.

PERUVIAN GUANO, 2¼ to 2½ cents per pound.
BONE DUST, when taken in equal quantities, $2 25 per barrel.
BONE SAWINGS, separately, $2.50 per barrel.
PLASTER, $1 to $1.25 per barrel.
POTASH, 3¼ to 4 cents per pound.
CHARCOAL, $1 per barrel.
SULPHURIC ACID, 2¼ to 2½ cents per pound.
SUPERPHOSPHATE OF LIME, 2¼ cents per pound.
WOOD'S RENOVATING SALTS, one cent per pound.

For sale at the State Agricultural Warehouse, No. 25 Cliff-street, New-York. LONGETT & GRIFFING.

Feb. 1—ctf.



Ketchum's Patent Mowing Machine.

Howard & Co., Proprietors and Manufacturers,

Buffalo, N. Y.

THIS justly celebrated machine has been steadily advancing in public favor, for its simplicity, durability and efficiency—and it has settled the question beyond a doubt that grass can be cut by Horse Power: for, during last season, Five Hundred of these Machines were sold by us, and universally approved by those who used them. Farmers were daily in the habit of cutting from ten to fifteen acres per day, with ordinary driving. It leaves the grass uniformly spread over the ground, requiring no turning to cure properly. In the Report of the Committee who served at the Trial of Mowing and Reaping Machines, held at Geneva in July last, they show fully and conclusively *this to have been the only Machine in the field which cut its allotted two acres, without clogging or any interruption*, doing its work admirably, and in far better manner than can be done by manual labor with a scythe. *Our* knives are not *sickle edged*, consequently do not clog at every little hummock or bog they may happen to come in contact with. The Committee also show that there is an actual saving, by the use of this Machine over hand labor, of thirteen dollars per day. We have only to ask those who want a *perfect* Mowing Machine to examine the Report and judge for themselves. This Machine took the first premium as a mower, at the trial in Springfield, Ohio; a gold medal, at the Fair of the American Institute, N. Y., also, first premium at the Provincial Fair, at Toronto, C. W.

They are so very compact that one of them can be easily carried in an ordinary one-horse wagon, and so very simple that it requires no machinist to put it together, as there are but two bolts (beside the pole bolts) to be secured to have the machine ready for use, and which does not require over ten minutes time. They weigh about 750 lbs., and can be worked by any boy who can manage a team. We have made all the improvements suggested by experience in the way of strength, durability, &c., and sell them under the following warranty: That said machines are capable of cutting and spreading with one span of horses and driver, from ten to fifteen acres per day, of *any kind of grass*, heavy or light, wet or dry, and do it as well as is done with a scythe by the best of mowers. They are equally capable of cutting Barley, Buckwheat, Millet, &c, It is much less trouble to keep the knives in order than a scythe, as they have frequently been known to cut from ten to fifteen acres without sharpening, which can be done on an ordinary grind stone in a few minutes. We can give any reference required for the full performance of our machine, as above stated.

Orders should be sent in early, as we shall manufacture but a limited number. The price of our Machine, including two sets of Knives, Extra Knife Blades, Wrench, &c., is $110, cash, in Buffalo, the machine to be delivered on board of boat or cars free of charge.

Office and Shop, corner of Chicago street and Hamburgh canal, near Eastern R. R. Depot, Buffalo.

Feb. 24—9—2tmtf. HOWARD & CO.

Albany Agricultural Works, Warehouse & Seed Store.

EMERY & CO., Proprietors.

MANUFACTURERS and dealers in Agricultural Implements and Machinery generally, among which may be found a full and general assortment of

Plows of all kinds.
Cultivators, for one and two horses, with cast iron and steel teeth.
Harrows of all kinds, Geddes and Scotch.
Hay Cutters, spiral and straight knife.
Emery's Improved Corn Planter and Seed Drill, for hand or horse.
Fanning Mills.
Corn Shellers.
Churns, Thermometer and Cylinder.
Vegetable Cutters.
Sugar Mills.
Garden and Field Rollers of cast iron sections.
Road Scrapers.
Iron Meat Cutters.
Sausage Stuffers. EMERY & CO.
369, 371, & 373 Broadway, Albany, N. Y.
April 14—15—1t—m1t.

Albany Agricultural Works, Warehouse & Seedstore.

EMERY & COMPANY, Proprietors,

SOLE manufacturers of the celebrated, Premium "Emery's Patent Changeable Railroad Horse Power," Threshing Machines and Separators, &c., &c., for one and two horses—designed for Farm, Plantation or Shop use. Its construction is such, that it can be applied to the driving of all kinds of machinery, without additional expense for geering, &c., &c. Owing to the great advance in the prices of Iron, we have found it necessary to advance the prices, to enable us to manufacture a power equally good with past seasons, rather than to use a cheaper material in their construction.

Our prices will be for the season 1853:

"Emery's Patent Changeable Horse Power," Thresher, Separator, Bands, &c., for two horses,......	$158 00
Emery's Patent Changeable Horse Power, Thresher, Separator, Bands, &c., for one horse,............	125 00
Common Rack & Pinion Power Thresher, Separator, &c., 2 horses,............................	140 00
Common Rack & Pinion Power Thresher, Separator, one horse,................................	115 00
Emery's Patent two-horse Power alone, ...	116 00
" " one-horse " "	83 00
Common Rack and Pinion, two-horse,.............	105 00
" " " one horse,.............	75 00
Threshing Machine with Separator and fixtures,	
26 inch cylinder,................................	37 00
24 inch cylinder,................................	35 00
Sett of Bands for Machine, with extras, &c........	5 00
Fanning Mills, fitted for Power,..........	$26, 28, 30, 32 00
Portable Circular Saw Mills, with 24 inch circular saw, filed and set in running order, for wood cutting, &c,....................................	35 00
Extra table and saw for slitting boards and fencing stuff, and general shop use, ...	7 00
Upright or Felloe Saw, for wheelright's use........	40 00
Cross Cut Saw, arrangements greatly improved to attach to Power for cutting logs into any desired lengths, in the yard or forest,....................	20 00
Churn attachments to power, for one or more churns,..	12 00
Feed Mills, with Iron plates,.......................	40 00
French Burr Stone Mills, for farm or mill use,	$120 to 300 00
Power Corn Sheller,.........	40 to 55 00
Clover Huller, from,........................	30 to 100 00

Thanking the public for their past liberal patronage, we pledge ourselves anew to them, to give them a good article at a fair price.

Terms—Cash or approved notes or acceptances, with interest, payable within four months, in Albany, New-York Boston, Philadelphia or Baltimore, as may best suit the purchaser.

All articles warranted made of good material, and to operate as represented, or may be returned within three months, at the expense of the manufacturer for home transportation, and purchase money refunded. The purchaser being his own judge in each case. For further particulars address the subscribers. Liberal deduction to dealers. Local agents wanted, to sell and put the above in operation, &c. Catalogues, giving full descriptions, furnished on application.

EMERY & CO.,
369, 371 and 373 Broadway, Albany, N. Y.
April 14—15—1t—m1t.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Agricultural Implements.—Field Seeds.

THE subscriber, occupying three large stores, which are filled with Agricultural Implements, asks the attention of the public to the most numerous assortment ever yet offered in New-York. Among these are Plows of more than a hundred different kinds, Harrows, Rollers with iron sections, Seed Sowers and Corn Planters, Cultivators, Reaping and Mowing Machines, Horse Powers, &c.

Field Seeds—Lucern, Ray Grass, Timothy, Clover, Belgian Carrot, Sugar Beet, Mangel Wurzel, Ruta Baga, Early Potatoes, &c.

Garden and Flower Seeds of the choicest sorts.

Peruvian Guano and other Fertilizers. R. L. ALLEN,
New-York Agricultural Warehouse and Seed
March 1—tf. Store, 189 and 191 Water St., N. Y

Fertilizers.

GENUINE *Peruvian Guano*, fresh from ship; just imported.

Super-Phosphate of Lime, a superior article, the best in this market.

Bone Dust, ground fine, and Sawings.

Poudrette, of the best manufacture.

Plaster of Paris, ground and in barrels.

R. L. ALLEN. New-York Agricultural Warehouse and Seed Store, 189 and 191 Water st., N. Y. March 1—tf.

Choice Garden Seeds and Flowers.

A CHOICE selection of the best early, middle, and late Garden Seeds, fresh imported from Europe, and grown in this country, expressly for me.

Flower Seeds—A fine assortment of all the best sorts.

R. L. ALLEN, New-York Agricultural Warehouse and Seed Store, 189 and 191 Water St., N. Y. March 1—tf.

Horticultural Implements.

PRUNING Shears, and all other implements used in the Conservatory, Flower and Fruit Garden.

Hand Plows and Cultivators, Rollers, Trowels, Scufflers, Hoes, Shovels, Spades, Rakes, Seed Sowers, and all other implements, of the newest and most improved kinds, for the Kitchen Garden. R. L. ALLEN,
New-York Agricultural Warehouse and Seed
March 1—tf. Store, 189 and 191 Water St., N. Y.

Just Published,

STOCKHARDT'S CHEMICAL FIELD LECTURES—For Agriculturists. Edited, with notes, by James E. Teschmacher.

Opinion of Samuel L. Dana, M.D. L.L. D.

The great and striking feature of this little book is, that written by an eminently practical teacher for a class of farmers whose good opinion of the value of science to agriculture was to be won, their experience has been placed above scientific conjecture, and their practical knowledge has been made the point of scientific illustration. Hence the work is more simple and intelligible than any other chemico-agricultural work which has yet appeared.

Devoted chiefly to the practical consideration and money value of manures, its views of vegetable physiology are at once comprehensive, transparent as water, and illuminated by style so bewitchingly simple and concise, that the reader, familiar though he may be with the subject, feels that he is carried onward under the guidance of a master spirit, and as he passes the old land-marks, sees them shining with a new light.

The book has yet to be written whose chapters on artifical manures shall equal Stockhardt's Field Lectures on bone and guano, and certainly no work has yet appeared, which has shed a clearer or milder light on the intimate connection between science and agriculture.

In truth, the great recommendation of this work is, that it is adapted equally to a class of readers who have yet to learn their A B C in agricultural chemistry, and to that other class whose diffusive reading, here finds itself compressed not less neatly than usefully. With regard truly yours,

John Bartlett. S. L. DANA.

Just issued, the Sixth Thousand of Stockhardt's Principles of Chemistry.

For Sale—a few sets of Apparatus in a portable form, prepared in Germany, and designed for the student, with or without the aid of a teacher. JOHN BARTLETT,
March 24—12—1t—e.o.m3t. Cambridge.

Basket Willows.

20,000 sprouts of last years' growth of Willows, suitable for Basket making, or for propagation, may be had if applied for immediately. C. N. BEMENT.
Albany, April 12—15—1t.

THE CULTIVATOR.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. I. ALBANY, JUNE, 1853. No. VI.

Rust in Wheat Prevented by Draining.

THE following suggestions, which we copy from a letter of an eminent agriculturist in Western New-York, whose soil is a strong, rich, clayey loam, opens a subject of much interest to wheat growers. The facts presented may not be wholly new to some; but the leading principle which they support may not before have attracted attention, or been so distinctly held up to view:

"I have learned that wheat, in the light and gravelly districts of Western New-York, suffers very little, if any, from rust or mildew; while with us, the two great causes of damage, are *rust* and *winter-killing*. I have been thinking over the subject; and as we know that under-draining is a cure for the latter, may it not also be a cure for the former?

"We have little if any land in this district of country, which does or has not required under-draining. Now the point to which I wish to direct attention is, whether the exemption from rust is not owing to the dryness of the soil and subsoil? If it should prove to be so, then we have an additional inducement to under-drain.

"I had some under-drains made in a piece of land that was originally a black ash swamp, and had a mucky soil—and from such, wheat is very liable to be ejected in winter. Yet over one of these drains I observed last spring that the wheat stood thick and undisturbed, while much at a short distance was severely injured.

"There is a tract of gravelly land between Lockport and Batavia, which I think is underlaid by plaster beds—a sort of *oak openings*—which is famous for producing wheat. It is worthy of inquiry whether *rust* is destructive there or not.

"In those dry Asiatic or African countries, where there is not moisture enough to encourage the growth of *rust* or *mildew*, it might be difficult to determine how much the soil or subsoil has to do with the matter; but if it could be shown that in our moist climate under-draining is able to counteract its defects on so important a point as the growth of wheat, the discovery would act as a powerful stimulus on our farmers.

"I may add, that under live trees, where roots keep the ground firm [by preventing much cultivation] and comparatively dry, wheat is neither liable to be thrown out in winter, nor injured by rust; and generally along our swales where there is the most moisture there is the most rust.

"When I removed to this country, I had no idea that our land would ever need draining, but this was when the ground was full of roots. Since these rotted out, there has been a settling down of the soil,—an intelligent neighbor thinks it has settled four inches in the last ten years, though I have no means of telling how much. I only know that I have fields which I would not now think of sowing with wheat, but to which purpose I should have made no objection ten years ago.

"All I intend by these remarks is to excite observation and reflection, and not to build up an opinion or theory."

Culture of Indian Corn.

As the time for planting corn is approaching, and being myself a practical farmer of some experience, I have thought it might not be amiss to state to my brother farmers, through the medium of your widely circulating papers, the mode in which I have for many years past been most successful in raising this valuable crop. It is this:

I take a meadow, or pasture, on which the grass is getting thin; cover it as thick with manure as can well be plowed under; then proceed to plow about six or eight inches in depth, taking care to have every furrow laid completely over. If the ground be uneven, or not well plowed, I follow with a heavy roller, which closes many a crevice and prevents the grass from choking the young plant, and also prevents the harrow, which immediately follows lengthwise the furrow, from disturbing the sod. After completing the field in this manner, if not perfectly mellow and smooth, it is either cross-harrowed or gone over with a two-horse cultivator lengthwise the furrow, which most effectually accomplishes the object.

The ground should be plowed thus deep for two reasons. First, in the spring, after planting, and while the corn is coming up, should the season be wet and cold, the water settles underneath the furrow, which prevents the seed from rotting, or the plant from drowning, as is frequently the case. And second, in the summer, should it be very dry, as is frequently the case after a wet spring, the root of the plant penetrates the deep mellow earth to where the fermentation of the manure and sod creates a moisture that steadily forces the corn on to maturity.

Corn ground, however, should not be plowed so deep as to throw up subsoil, that being of too cold a nature—but for wheat is highly beneficial.

I mark my corn ground both ways, the rows about three feet four inches apart, taking great care to have them perfectly straight, that the cultivator or plow may be less liable to disturb the hills while tending it. In planting, five or six kernels should be put in a hill, and covered with mellow earth—dry lumps and stones are hard things for a tender plant to contend with. Some farmers might think six kernels too many; and so it would be if all grew; but they do not always, and if they do, it is easier to pull out than put in. It is well to mix plentifully with pumpkin seed, as they injure the crop but little, and are thought by most farmers to go far to lessen the expense of raising the corn.

When the corn is sufficiently advanced to see the rows, it is passed through, twice in a row both ways, with a one horse, steel-tooth cultivator. This destroys the grass and weeds, if any, between the hill, and a few men will soon eradicate what remains in the hills. It is then dressed with about a table spoonful of composition, of equal parts, lime, plaster and ashes, which serves, when sufficiently moistend by rain, to drive the grub and wire-worm from the hill, if any there be, and hasten rapidly forward the plant. In about two or three weeks it is passed through again, either with a cultivator or light plow, both ways, twice in each row. This time, one hand with a hoe to cut an occasional weed or thistle, and to straighten up any hills that may be disturbed by the horse or plow, will do all that is necessary. When it is about, or a short time previous to, its tasseling out, it is plowed one and sometimes both ways, deep, turning the furrow toward the hill. This, with a little labor with the hand hoe, will cause the stalk to throw out its brace roots higher up, which keeps it in a perpendicular position, and aids very materially in facilitating the cutting, should that be performed, or in husking, should it not. It is then left to ripen.

When the ears are about three-fourths glazed, it is cut up near the ground, and from thirty to forty hills put in a shock, and tied securely at the top with a band of straw—not with grass, weeds, or a stalk, as many do—and left to cure.

It may be thought by many farmers, that the period for harvesting which has been mentioned is too early to secure the greatest weight of grain; to which may be said in answer, that the stalk being separated from the root while green, much of its vitality will be drawn by the unripened ear, and bring it to maturity. Consequently, in most cases, a greater gain is realised than when endangered longer by early frost.

Corn raised after the above manner, frequently yields me ——* bushels of shelled per acre; and the stalks are equal for fodder to from one and a half to two tons hay per acre. C. *Lansingville, Tompkins Co., April* 23, 1853.

Practical Farming—No. 2.

Mr. Tucker—In my last, I told you that it was better to stock land lightly—better to have six cattle increase 1,800 lbs. in six months, than to put eighteen on the same land, to increase the same number of pounds. But 300 lbs. per beast, can not be gained by six months pasturage, unless the cattle have been well kept through the previous winter; but if fed from ten to twenty bushels of corn, oat or barley meal, according to age—the youngest of course requiring least, the rapidity with which they will take on fat when turned out to grass will astonish every one not accustomed to feeding cattle.

I also stated that grass, when lightly pastured, was a cheap way of improving worn-out lands. I repeat, it is a cheap way; but the fertility thus required will not last like barn-yard manure, provided the stock kept in the yard has been well fed. If fed nothing but straw, as is the practice of many farmers, it would be better to keep no stock, and to supply the straw at once for manure, but let from ten to fifteen bushels of meal be fed to a two-year old steer, even with straw for the first three months—say to first of March—with good hay or cornstalks afterwards, and he will, at the average of prices for years past, bring, after being grass-fed, from $10 to $15 for the meal—that is, he will bring in market, at the end of July or early in August, $10 to $15 more than if fed no meal.

Sheep do much better on straw and grain than cattle. If fed with good bright straw, with a bushel of corn to the hundred sheep per day, or its equivalent in oats, barley, buckwheat or *peas*,—(50 lbs. of the latter I think as good as 60 lbs. of corn)—they will continue to gain from the time they are put in the yard until the first of March, when they ought to be fed with hay. Still I am opposed to feeding straw, as it lessens the quantity of manure, and enough more hay and grain can be raised by making all the straw into manure, to feed more than all the straw would feed. Besides this, the straw is required for bedding for the animals. Feed is lost on cattle and sheep, if only wet and dirty yards are provided for them to lie in; neither will lie down in such, until they are so much exhausted that they can stand no longer; and of course they cannot *thrive* unless made comfortable. To keep stock profitably, they must be well cared for, and be provided with dry, clean beds.

By the above mode of feeding, manure enough can be made to increase the productiveness of the farm from year to year; and if our farmers would only make all the manure they can on their own farms, they would have no occasion to resort to guano or chemical manures. It may perhaps be profitable to import guano, and to apply to chemists to manufacture manures, in Great Britain, where produce enough cannot be raised to feed the population; but not so in this country, where we raise a large surplus for exportation, and a great deal that is worse than wasted in manufacturing intoxicating drinks. If our farmers would convert their coarse grains into mutton, pork and beef, I believe they would find it more to their profit than selling them.

I notice by papers recently received, that England imported less guano by 100,000 tons, in 1852 than in 1851. It appears to me that it cannot be very profitable, as it only increases the crop for one year, and that barely enough to pay the cost, whereas, barn-yard manure will enlarge the crop for many years. JOHN JOHNSTON. *Near Geneva, N. Y.*

◆

Shall I Cut my Seed Potatoes?

Mr. TUCKER—I have never found time to invesgate this subject until during the last summer. I wish now to give you some of the results of these investigations, and the reasoning connected with them.

1. The difference between a proper seed and a potato tuber, (and many other tubers also) is this: A seed has one vital point whence the plant must start. A tuber has as many vital points as buds or eyes, and may be cut into as many parts, each of which may be made to grow. The vital energy located about the eye, and the storehouse of nutriment, usually in the shape of starch, treasured up in the pulp, being sufficient for this purpose.

2. Nature does not seem to have intended, ordinarily, that *all* these eyes should grow. The number seems to be a provision against accident, just as in the case of fruit trees. If a part of the buds or eyes of either are destroyed, the others are forced into growth. A potato is in its most perfect condition when a single eye grows and receives the support of the whole tuber. The vines, in the end, will be as numerous and wide-spread as though more had grown. Usually, however, a large proportion of the eyes do grow, especially under generous culture.

3. The eye of the potato, just like a true seed, depends upon the nutriment stored about the vital point for the impulse that throws out the plant—the sprout upward, the root downward. In the case of a proper seed, water must be absorbed first; in the case of the potato that water is already in the tuber, and can not be absorbed through its skin, which is as impervious to water as India rubber.

4. Now, if we cut potatoes for seed, particularly if we cut them very small, say into single eyes, then we subdivide the whole nutriment of the tuber into as many portions as the tuber has eyes. Instead, therefore, of each bud that grows having the nutriment that belonged to two or three, as is often the case when whole tubers, or the half of very large tubers are planted, it is stinted to its own individual proportion of the whole tuber. The same reasoning applies to the use of very small potatoes for seed.

In strict accordance with this reasoning, every observant cultivator of potatoes has noticed that in the use of seed cut very small, or of very small whole tubers, the early growth of his plants was slow, and for a time spindling. In such cases a good soil, careful culture, and a long season, may bring up the plant to a sturdy growth and a large yield. It cannot but be seen, however, that in case the season is short, or otherwise bad, or the variety planted a late one, and especially if the culture be careless, the crop is greatly jeopardised.

5. Still more does this reasoning find enhancement in the fact that by this use of cut or small seed, the season of tubering is made from one to three weeks later than it otherwise would be, and thus the health and yield of the crop, and often the table quality of the tuber is endangered.

6. It is obvious to every cultivator, that cut seed is exposed to danger in cold and wet springs, it being well ascertained that the cut surface of a potato withstands the action of cold and wet much less perfectly than the natural skin of the potato. In good weather I have not found cut potatoes rot, since not more than one in two hundred has failed to grow.

The conclusion of the whole matter then seems to be this. If you cannot get the desirable quantity of seed, or if you have a very choice variety which you wish to increase as fast as possible, cut your seed, and also plant the very small ones. If the variety planted matures early, you have also the more hope of success. So, also, if it be a very hardy sort, success will be the more probable. It will well pay cost, if, in planting such cut or small seed, you have a little rich compost at hand, to put around the seed when planted. This will in some degree make good the feebleness of the mother tuber.

It seems to me that facts, and the foregoing course of reasoning, settles the whole question beyond a doubt. Should other cultivators have come to a different conclusion, I hope they will enlighten agriculturists with their reasons. C. E. G. *Utica, March* 11, 1853.

◆

Osier Willow.—Its Preparation for Market.

BY C. N. BEMENT.

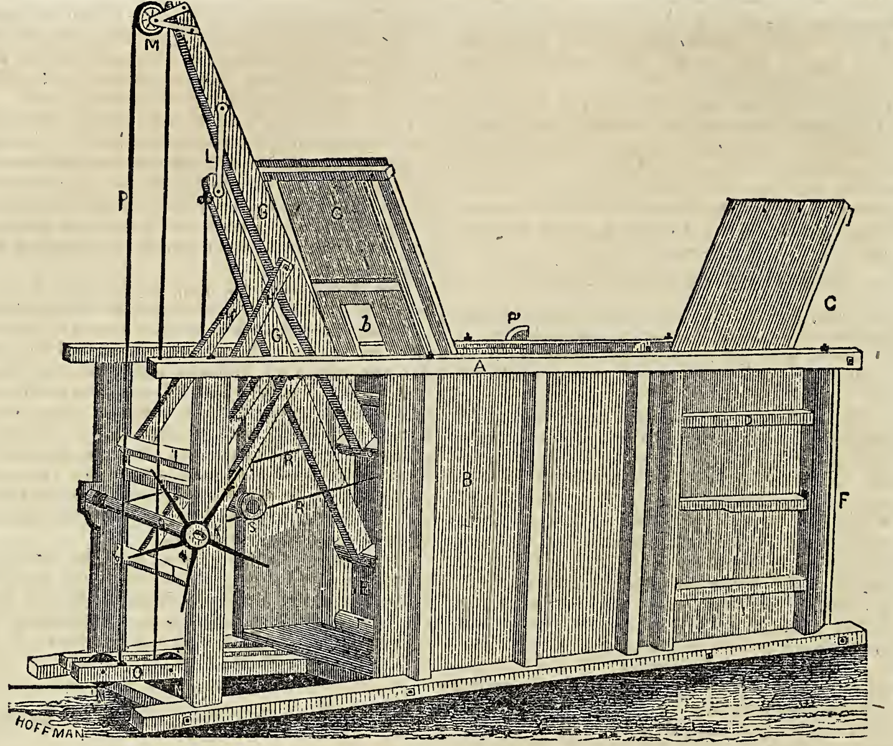
In a former communication in the 5th No. of the Country Gentleman, on the cultivation of the Osier Willow, I omitted giving the method of preparing them for market.

The best time for cutting is in the spring, just as the sap begins to run. When wanted for baskets only, they should be cut every spring. After a new bed is planted, the first years' growth will be small, but will increase in number and size the following years, as the stumps grow larger. Where large willows are wanted for making the frames of cradles, wagon bodies, &c., they should be cut only every second year.

After cutting they should be bound in convenient size bundles, with some of the small sprouts, and the butt ends set in a wet place, to prevent the bark from tightening before it is convenient to strip or peel them.

The process of stripping off the bark is very simple, and may be performed by a boy ten years old. All children are fond of this work, and often make quite a frolic where there are several employed on as many benches, striving who can peel the greatest number in a given time.

The machine for stripping is also quite simple, being nothing more than two pieces of tough, sound wood, forming two parts of a triangle, opening about one inch at the top, and coming close together at the bottom, like the letter V. Inside of each prong must be inserted a small piece of round iron, or large size wire, leaving about one-half of its diameter projecting from the wood; the irons coming close together at the bottom of the crotch. This machine should be firmly fixed in the end of a strong wooden bench, something similar to that used by coopers for shaving hoops.



When worked, a bundle of willows, washed from the mud, should be placed parallel with the bench, the operator sitting astride of it, and draw the sprouts through the machine, letting them sink to where the irons will grasp the bark. In most cases, once drawing the sprout through, the bark will strip off; if not the sprout should be turned and drawn through where the bark adhered.

After stripping, the willows should be spread in a clean dry place, until the moisture has evaporated, to prevent mould or mildew, and then put up in bundles of from fifty to eighty pounds, carefully bound at several places with some of the sprouts, to prevent breakage or damage in moving them. Sometimes it is necessary to boil or steam them before stripping, which bleaches them at the same time. It will now be fit for market, and should command from three and a half to four dollars per hundred pounds. *Albany, April*, 1853.

◆

Dederick's Patent Parallel Lever Press.

In a previous number we presented a cut of a Stationary Hay Press, invented by Mr. Dederick of this city. The above cut represents a recent invention of Mr. Dederick, first exhibited in model at the State Fair at Utica, in Sept. last, constructed so as to press with a single lever from both ends towards the center; since which time he has improved it so as to obviate some material objections, such as the enormous friction produced by keeping the follower vertical by guards, and the liability to break, caused by the entire resistance of the hay being sustained by the levers, as will be seen by the following description: "The cut represents the press as open and ready for filling. A is the frame, B the box containing the hay to be packed; C C are doors opening the whole length of the box, through which the press is filled, and are closed down when full; D are side doors, through which the bale is hooped and removed; E is the follower or slide, resting only upon the friction roller T; F is the head of the press, between which and the follower E, the pressure is exerted, each sustaining one-half the resistance of the hay. The parts G G, H H H H, together form two parallel toggle joints, secured at their extremities into axles I I, and J J, and confined together by the connecting bars L. Thus confined, they keep the follower vertical without guards, notwithstanding the hay may be unequally compact, and would operate the same were the box only half full. The rope or chain is fastened to the lower lever G, thence it passes around the shieve M, and under shieve N, to a capstan or snatch block, as may be desired. The power being applied to the rope, the levers are depressed until they lie horizontal, when the bale is packed, standing on its end. Q is a winch; R R are ropes attached to the follower E, and are secured to, and wind up on the winch Q. Upon these ropes rests a roller S, extending across beneath the levers, and is carried down by them, depressing ropes R R. By means of this winch and roller S, through the genicular power of the ropes, the levers are raised with the greatest ease by one person. The whole press is 12 feet long, and 4 feet 10 inches in height, and will pack bales of 300 lbs. each. From six to eight tons per day may be packed, according to circumstances." Price, all complete for use, and warranted to give satistion, $125, at the shop.

Further particulars may be obtained by letters addressed to the inventor, Albany, N. Y., or by calling at his shop, No. 58 Bleecker street.

Orchard Grass.—*Dactylis glomerata.*

Lewis Sanders, Esq., the well known farmer of Grass Hills, Kentucky, gives in a late Louisville paper, the results of more than thirty years experience with the different varieties of grasses. After testing thoroughly a vast many sorts, he gives a decided preference to Orchard grass, and we copy what he says of it, together with his directions for saving the seed and sowing it. We should be glad to learn whether the experience of farmers in other sections of the Union agrees with that of Mr. Sanders in Kentucky:

My observation and experience has induced me to rely mainly on orchard grass and red clover; indeed, I now sow no other sort of grass seed. Blue grass and white clover are indigenous to our soil—they come in of themselves. I do not look upon them by any means as intruders, but grand auxiliaries; these, with orchard grass and red clover, make the best pasture.

Orchard grass and red clover mixed make the best hay of all the grasses for this climate, [Kentucky;] it is nutritious, and well adapted as food for stock. I perfer orchard grass to all others; it is ready for grazing in the spring, ten to twelve days sooner than blue grass, or any other that affords a full bite. When grazed down, and the stock turned off, it will be ready for regrazing in less than half the time required for blue grass. It stands a severe drouth better than any other grass; when all other sorts are dried up for the want of rain, it keeps green and growing. In summer it will grow more in a day than blue grass will in a week. If the ground is properly prepared, a sufficiency of seed sown on it, the orchard grass takes possession and keeps it. It will not spread, but it keeps out noxious weeds and intruders. I think it is from its abundant roots that most of its good qualities are derived.

Sowing the Seed.—Prepare the ground nicely by frequent plowing and harrowing, as is customary in sowing flax or hemp, as early in the spring as convenient; the sooner the better. Sow one bushel and a half of orchard grass seed to the acre, and three or four pints of red clover seed. It is of great importance that the seed be cast uniformly over the ground. Mark off in suitable widths for a cast of light seed; sow half the seed, then mark off crosswise, and sow the remainder. Sow the red clover seed at the same time, but separately. If the ground should be cloddy, the back of a two horse harrow would be better.

Orchard grass is naturally disposed to form and grow in tussocks. The best preventive is a good preparation of the ground, and a sufficiency of seed uniformly sown.

Weeds will spring up in May, wherever strong, and will crowd and perish out the young plants of orchard grass. To remedy this evil it is absolutely necessary to go over the ground with a keen scythe, and mow down weeds, grass, and all, as if you were mowing a meadow for hay. This should be done early in June, according to the season. There will then be fine fall grazing for young stock.

This work done, you will have a fine plat for either a permanent meadow, or for pasturage. Every farmer ought to raise his own grass seed, and have some to sell, which will soon be the case if a few bushels of seed only are procured and put in as I have described. He can then sow his seed how and when he pleases, and a little experience will teach him the best time and the best method. Grazing orchard grass after the middle of January, diminishes the yield of seed.

To save the Seed.—The seed head does not ripen regularly; if let to stand too long, much of the best seed shatters out; if cut too early, the seed in the lower part of the head is immature—practice, with judgment, will fix upon the right time. The seed stem puts up above the blades of the grass, and the heads of clover. An expert cradler is best—the sickle may be used—tie up in sheaves—put about twenty-five in a shock, no cap—to remain a short time—some of the immature seed will ripen in the shock. After all the moisture is exhausted, it is then ready for thrashing or treading out. With the rake and hay fork you get off the straw—there is not much chaff. I use three sizes of riddles; the first a coarse one to get clear of the remaining straw, &c., then pass it twice through a finer one, allowing the seed to pass through easily; then use the fine riddle, freeing the bulk from imperfect seed and dust. It is now ready for barreling or for sacks; it ought not to remain in a large bulk.

As soon as the seed is cut mow for hay; the sooner after the seed is cut the better. The second crop will be the better by mowing the field soon after the seed is cut. This second crop should be the main reliance for hay for the farm, and there is no grass that produces such good hay for every kind of stock, horses and mules included.

Orchard grass is not a good *binder;* if sown on steep hill sides, a plentiful cast of blue grass seed should be sown with it.

The late Judge Peters of Pennsylvania, (who was at the head of all agricultural improvements in that great state for many years,) preferred it to all other grass. So did that spirited and intelligent gentleman, John Hare Powell, of cattle celebrity, of the same state.

◆

Experiments with Potatoes.

For several years my potatoes have failed with the rot. In the fall of 1851, I thought I would try my hill land, without manure. I took my team, plow and drag, and measured off 150 square rods of ground, and commenced plowing as deep as the plow would go, about nine inches. The next May, I dragged it until the top was very mellow. I then took the one-horse plow and marked it out three feet square. As seed was hard to be got at one dollar per bushel, I procured three bushels of very small potatoes, and all that I could find that was as large as a good sized hickory-nut, I cut in pieces and put three pieces in a hill. I had one half bushel of quite large potatoes; these I cut and planted by themselves, which made three and a half bushels of potatoes, all told. These I planted on 149 square rods of ground. I planted the middle of May. When my potatoes were up about four inches high, I plowed them out both ways with the small plow, and hoed them very well; I then took half a bushel of unleached ashes and half a bushel of plaster and mixed together, and put about one large table-spoonful on the side of each hill, except two rows through the middle of the piece, on which I put nothing. In about two weeks I plowed them out again both ways, two furrows in each row; hoed as before, and then took three pecks of unleached house ashes and put on the side of each hill as before, except the two rows, and this was all that did to them. The two rows that I did not put anything on, looked quite sickly and yellow, and the tops were about 12 to 15 inches high. The other tops were very large and rank; some of them three feet long. I commenced digging the fourth week in October, and dug the two rows that I put nothing on first, and got three bushels and a half and three quarts, all told. The next two rows that I plastered and ashed, nine bushels and a half and five quarts, making more than two-thirds difference in the two rows. I dug from the piece, two hundred and fourteen bushels of the best potatoes that I ever dug—not one but what was sound. The small potatoes that I planted gave as much to the hill as the large ones, but more small ones in the hill. The large potatoes gave me large potatoes again. This is the first of my book farming. I intend to try again, and will tell you what luck I have. J. F. Hopkins. *Catharines, March*, 1853.

Extermination of Weeds.

My thoughts, and to some extent my labors, have been brought into action during a few of the past seasons, for the purpose of devising some efficient method to "kill out" those soil impoverishing weeds, which, by *careless culture and thriftless management*, have nearly over run some of the farms with which I am acquainted. It is not uncommon to see whole fields bearing such a crop as *mullens*, for instance, as would have been creditable to the owner, had his ground produced as great a burthen of Indian corn! Nor is the mullen alone entitled to such pre-eminence; for other weeds are occupying the ground, and usurping the nourishment from the soil, which ought to be applied to better purposes.

In my efforts, I have had in view more particularly, that most noxious plant called yellow weed, negro weed, snap dragon, and other "hard names." It is, I believe, considered by farmers in this region, the greatest *dread* of all the weedy tribe. It commonly grows in thick patches, has a small stalk from twelve to eighteen inches in height, and at its top has a rich cluster of gaudy yellow blossoms. Its seeds are thin and light, like those of the parsnip—small, and of dark color. It is presumed that a smart gust of wind will carry them a fourth of a mile. Thus it spreads.

I do not, however, fear the enemy when he shows his front in the open field; but when he fortifies himself by stone walls, or ledges of rock, or extends his lines along the road side, I admit him to be a formidale foe.

But how to subdue him is the question. My method to extirpate this and other weeds, is to sow buckwheat as early as I dare—on account of frost—and as soon as it becomes fully blossomed plow it under, and sow with buckwheat a second time, covering the seed with a "bush," lest the harrow should drag out the green crop. If the land is in "good heart," this crop may be harvested at about the usual time; if not, plow under again, and sow wheat or rye. These three successive plowings, together with the vigorous growth of the wheat, will do as much toward effecting the object, as any method which I have tried; and if the *two* crops of buckwheat are well turned in, will put the land in good condition for winter wheat or rye. L. Hine. *Cairo, N. Y., Feb.* 1853.

Ashes, Lime, &c., for Corn.

I tried an experiment on my corn last summer, with ashes, lime and plaster, and was so well satisfied myself, I thought, perhaps, you might think it worth a place in your paper. I mixed equal quantities of slaked lime, ashes and plaster, and put about a gill on a hill, when the corn first came through the ground.

When putting on the ashes, &c., I left four rows; and when the corn was harvested, I kept these rows separate, and took two rows on each side of the four and husked them separately. The difference of yield in favor of that which was ashed, &c., was at the rate of about ten bushels to the acre. The difference in color could be seen all summer, as far as the rows could be distinguished. Henry S. Bunt. *Norway, Herkimer co., N. Y., March* 10, 1853.

Directions for Cultivating Seedling Potatoes.

1. Soak the seeds in lukewarm water six or eight hours, then mix them with sand or fine earth, to give them body, so that they may be sown thinly and evenly. Sow in as clean ground as possible, or you will lose them in weeding. Cover lightly, and press the earth upon the seeds, marking the exact place of the rows very accurately. Potato seed, if well saved, is very sure, but slow in sprouting. They will be fit to weed the first time, in from three to four weeks. Sow different sorts separately. Give the whole ground of your bed to them.

2. Sow in Central New-York the middle of April; but earlier farther south. Transplant in six weeks. The plants are as hardy as tomatoes, and may be transplanted similarly, taking earth up with them when you can, and having first hardened them to the air before removal. Shield them from the hot sun with any large leaves or shingles, until they get rooted. Transplant into a fair soil, but not a rich one, as a moderate growth is stronger than a rapid one. Use a handful of rich compost about the young plant, to give it a start.

3. If sown in Central New-York use a moderate hot bed, or sow as late as May 10th in a cold bed under glass. Farther south, sow out of doors as you would cabbage.

If you sow under glass, be sure to shade from the hot sun in the middle of the day. Do this with straw sprinkled lightly over the glass, or with narrow boards. Begin before the seed are up, and continue as long as they are in close beds. Out of doors this is not usually needful. Few plants suffer so much from hot sun as young potatoes.

4. In transplanting, prepare your ground by deep plowing. Lay off your furrows three feet apart. If possible, run a small sub-soil plow through the bottom of your furrow, to give depth to your culture. Place your plants two feet apart in the row, and but one plant in a place. Do not use poor plants if you have a tolerable supply. Set your plants a little deeper than they grew.

5. As soon as they take root, hoe, and hoe and plow frequently until they are in flower, after which do nothing more than superficially hoe up

the weeds. I advise not to hill potatoes in dry ground.

6. Dig early; it may not be quite so early as you do common field crops, but before they are injured by wet, dark, and damp weather. Remember that a seedling potato the first year, sets and matures its tubers mostly after regular field crops have got their growth. Seedlings dug somewhat early will not be so large, but they will be much more healthful than when dug later.

Late dug seedlings are often a little diseased, not from constitutional weakness, but by a law applicable to all tropicals when grown in unpropitious weather.

7. In the fall dig each hill alone. Having dug a plot, go over it once and again, most deliberately, throwing out every hill that seems *weak, ill-shaped, yellow fleshed*, or *spreads widely in the ground*, or is *small and immature*.

A seedling well cultivated the first year, and yet making small tubers, will never afterwards ripen in season.

Save each hill separately, that is, put such good hills as can readily be separated, together, to the amount of three or four. Put these separate parcels in dry sand in a barrel, putting strips of shingle between the parcels. In this way store the whole. Throw away the small tubers of even your good hills: they would be more trouble than profit.

9. Some of your good sorts will be tolerably eatable when two seasons old, others will require from three to four years growth, just as in the case of many fruits.

10. Good seed yields a very variable proportion of plants. In my experience it has varied from one-fifth to four-fifths of the seed sowed.

11. Potatoes cultivated in this manner will mostly gain an eatable size the first year. C E. G. *Utica*, 1853.

Contributions of Science to Agriculture.

BY SAMUEL W. JOHNSON.

The actual contributions of science to agriculture, are not so numerous as might be judged, from its applications to other arts. Most of the processes of improved farming, though belonging to the science of agriculture, and capable of explanation by it, originated with practical and not professedly scientific men. Yet all practical processes are scientific, so far as founded on truth, and many of them were discovered by the same methods that are used by the philosopher in arriving at new facts and principles.

Plowing, spading, manuring, draining, irrigation, have been in use, in a more or less perfect manner, from the earliest times.

If we may credit the reports of travelers, or if we admit the adequate support of their dense population, the Chinese are to this day unexcelled in the perfection of their husbandry. It is certain that they have attained great excellence in many arts, as the manufactures of porcelain and of silk, which originated with them. Yet they are entirely unscientific. These arts are with them the slow growth of centuries, the result of accident, or of rude and undirected experiment; and though so perfect, it should be remarked that they are rivaled, and in many points excelled by the similar manufactures of Europe, though the latter are of very recent origin.

Among the reasons that explain the very limited advantages that science has furnished to agriculture, should be noticed principally the *infancy* of science; chemistry, geology and the other natural sciences, have only within half a century assumed such shape as to promise much to the farmer. This infancy has not prevented science from assisting the other arts. It has been of great service to them so far as its aid has been sought. The great companies that carry on mining operations, print works, &c., having abundance of capital, concentrated in a small space, can afford to employ chemists at large salaries, to invent processes that shall increase their profits; more especially since they can keep secret, and monopolise any valuable methods that may be discovered. The principles and details involved in the chemical arts are not so numerous and complicated as are those that affect the various branches of husbandry, and therefore admit of more easy investigation. Scientific agriculture can not be greatly advanced, except by experiments on a large scale. Very few individuals unite the pecuniary and intellectual qualifications requisite to conduct extensive experiments successfully.

Boussingault of France, and Lawes of England, both wealthy landed proprietors, have carried through many interesting and valuable experiments; but their investigations need criticism and repetition to settle their value.

The mere chemist is not fully adapted to advance the science of agriculture; for although chemistry, more than any other one department of science, may promise profit to the farmer, yet it alone is not sufficient. No one can properly attempt agricultural researches who has not a practical knowledge of the usual and the approved methods of farming.

It is not a wonder that scientific men, who are greatly occupied with the duties of the College and University, make serious errors in their attempts to develope the principles of agriculture. It is rather a wonder that they have made so few mistakes. When the farmer appreciates the services of the man of science, as he does those of the carpenter or blacksmith, and demands and offers to remunerate his labors, then we may look for rapid improvement. Agricultural Societies have the power to accomplish what farmers cannot do individually. In Great Britain, the Highland and Agricultural Society, and the Royal Agricultural Society, have long sustained scientific investigations and to no small purpose. We owe to Agricultural Societies much of the valuable influence that Prof. Johnston has exerted through his published lectures.

The New-York State Ag. Society has the honor of calling forth the admirable "Elements" of Prof. Norton, and the present indications are that many associate bodies in this country and in Europe, are rapidly becoming devoted to the establishment of agriculture on a sound basis.

Notwithstanding science has yet done comparatively little for the farmer, it has contributed some principles and practices of very great importance. We can do no more here than briefly indicate some of these.

Chief among them is the discovery of the true nature of vegetable nutrition. The plant increases in size and weight, by taking into its structure certain ingredients of the soil in which its roots are fixed, of the air which bathes its leaves, and of the water that is always present in both air and soil. Chemistry has shown what particular bodies are requisite to mature the plant, and thus explains the fertility or barrenness of soils, and the use of manures.

The chemist has discovered that a class of plants, as the common grains, require much *phosphoric acid* for their full development; another class—the root crops, need large supplies of *potash*, while the grasses must be furnished with *lime* in quantity. It is easy then, knowing the necessities of the various cultivated plants, to adapt the soil to their most profitable production.

It has long been a mooted point among practical men, at what time grains and grasses should be harvested. Chemical analysis has settled it, by proving that during the ripening of grain, certain changes occur, which render the fully mature seed less nutritious than that gathered while in the milk.

As concerns the preservation of stable manure, science has indicated the wastefulness of the prevailing practices. In whatever part of the country we travel, we see that the majority of good and thriving farmers even expose their stable dung to the full action of the elements, taking no care to shelter it; many of them cart it upon the fields in autumn, to lie the whole winter; and generally it is true, that with no great saving of labor, the value of manure is reduced to one-half or one-third of its original worth. In this country, the *solid* manure of domestic animals is deemed of most value. In other countries, it is the prevailing custom to treasure carefully the *liquid* manure. Ask one of our unreading farmers what the urine of a cow is worth annually, and he has never thought it of any particular importance. A Flemish farmer considers it worth $10.

Which is the most profitable, to let it go uncared for, or to scrupulously preserve it? Chemistry answers—take care of it, and the reason it offers for this advice is satisfactory. The urine is far richer in the materials which most encourage vegetable growth, than is the solid manure.

The practical uses that science may *this day* serve the farmer, are so great that it were well worth his trouble to become a student, and so far master its principles and applications to husbandry, as to claim without unjust pretension, the rank of a scientific farmer.

If want of early training leaves him with an inaptitude to study that he cannot command energy enough to overcome, let him at least see that his sons be taught the beautiful and beneficent truths revealed by modern science, that affect his calling.

Though so little, comparatively, has yet been accomplished, yet that little is of exceeding value, and it is no hazardous prophecy to predict, that in few years, throughout all enlightened countries, agriculture will be taught as a science, as extensively as it is now practiced as an art.

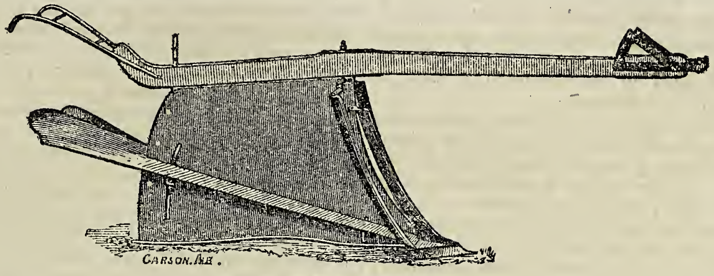
Moss in Grass Lands.

Messrs. Editors—I notice the inquiry by R. F. B. Ellsworth, of Ohio, in regard to grass lands running out, and moss coming in, and rotting out the grass. I have noticed this frequently in years gone-by, in grass lands. In cases of this kind, where the land is in pasture or meadow, and can be tilled to advantage, as soon as the "moss" comes in largely, I would put in the plow, and let the land go through a course of crops of two or three years, as the case may be. After this, seed down again with plenty of good grass seed, according to the farmer's own judgment. If the pasture or meadow is too rough to plow to good advantage, then I would give the land a good top dressing of compost, if you have it, which is an important consideration; then go over the land with a fine, sharp-toothed harrow. Give it a thorough harrowing each way of the land, or at right angles. After this sow a good supply of grass seed, or the grass seed may be sown previous to the harrowing, as you prefer it. I do not consider this last plan as effectual in restoring the soil to grass, as the former method. But should only resort to it where it was necessary, by a stony or rough soil.

This "moss" in grass lands, I have observed, is of two kinds. One, as is mentioned by your correspondent, grows up thick, and after a while rots away the sod, so that it becomes soft and spongy to the foot. The other kind is a "moss" that grows short and thick to the bottom, with a very soft and velvety touch to the foot. But the sod under it does not rot, but cakes down into a solid body, so that when the plow passes through it, it will often turn up a patch of the sod as large as the top of a two bushel basket. This kind of "moss" roots out the grass as effectually as the other kind. Yet I consider it better for the soil, as it forms a heavy sward, and protects the soil from the atmosphere. Whereas the other kind rots it away, and leaves the soil in a barren state. However, I should prefer to get rid of either kind as soon as it could be made "convenient" after it made its appearance. L. Durand. *Derby, Ct., April* 27, 1853.

A Proposed Experiment.

There has been no saying oftener repeated, and none more worthy of repetition, so far as farm economy is concerned, than "A place for everything, and everything in its place." One of the best modes for every farmer to apply this rule in practice, is to make a complete list of all his farm implements, from his wagons, carts and plows, down to awls, gimblets, and screw-drivers. Let every implement be immediately returned to its place after using, no matter how inconvenient this may be, instead of throwing it on the ground till forgotten, with the intention of replacing it when a suitable moment occurs to do so. Now, if any one is unprepared to adopt this plan, we would recommend the following experiment, in order to reduce its merits to the test of accurate figuring:—Let him keep an accurate record of all the time lost in one year by hunting for lost tools in times of emergency, adding in the losses occasioned by keeping other persons or teams in waiting, while the search is in progress, also adding the waste occasioned by the consequent exposure of such tools to the weather, or by finally losing them,—and not forgetting to estimate the detriment to his crops and farming operations generally, by the delay thus frequently occasioned. (He may, likewise, if he chooses, keep an account current of the amount of vexation caused by these frequent annoyances—unless he is so far gone that disorder and delay are matters of indifference to him.) We have no doubt that such an experiment as this, faithfully followed out, would greatly surprise him at the end of the year, and furnish satisfactory proof of the immense superiority of the plan first proposed by us. Who will be willing to give *both* ways a full trial?



Tiffany's Draining Plow.

Ditching Plow.

The above cut represents a ditching plow, invented by Mr. J. C. Tiffany, of Coxsackie, Greene county, N. Y. It consists of a main standard, to which are attached two movable elevators, with mould-board attachments, and to the point are fastened three knives—the center one attached to the front edge of the standard, to split the dirt, so as to pass freely each side of the standard. The side knives are fastened to two moveable lips or arms, which are fastened to the sides of the standard. These knives cut the sides of the ditch. The whole body of dirt being thus loosened, it passes up the elevators, and is thrown off upon the side by the mold-boards, in order to remove the dirt already deposited, provided the depth of ditch is not obtained by the first cut.

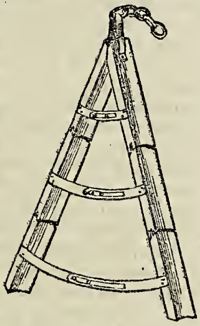


Fig. 2.

The plow is followed by a flexible jointed spreader, made to open and contract, in the shape of a triangular harrow, (Fig. 2.) which removes the dirt from the side of the ditch, and out of the way of the next elevation. By the contraction of the spreader, the deposites are placed evenly upon the top of the ground, and when the ditch is finished, and the tile or other material is laid, the earth can be returned again by reversing the spreader. The sides of the ditch can be cut sloping or straight, and the width of the ditch is regulated by the width of the elevators. The bottom of the plow is made slightly hollow, so as to overcome some of the friction, and make it of lighter draft. The depth can be regulated by the beam, which is made to oscilate upon the front standard passing through it, and is held firm by a pin passing through the beam and hind standard, near the handles of the plow. Thus the trouble of shifting the clevis is in a great measure removed. Application has been made for a patent, and a brass model will be on exhibition at the Crystal Palace in New-York.

Culture and Value of the Parsnep.

Messrs. Editors—As one who has lived twenty years upon a farm, searching all the while for *reliable* information, both from his own experience and from that of others, ought to be in possession of some "fixed facts" and settled opinions; and as duty, propriety, and fraternity require that we should allow others the opportunity of benefiting by our experience, I feel moved to give you a few items of information which I think very satisfactorily settled by evidence within my own observation.

Disliking long prefaces, and trusting that all your correspondents will dispense with them, I commence the brief summary of my experience and observations of twenty years, by a statement in regard to the value of parsneps.

Parsneps for Hogs.—One of the things which I consider well settled, and a reliable and useful item of knowledge, is this: that parsneps, either raw or cooked, but preferably cooked, with the addition of apples, potatoes, &c., occasionally, were it only to prevent the appetite from being cloyed by "eternal sameness," constitute the best kind of food whereon to fatten a hog. They are also the best kind of roots for milch cows. Both hogs and cows eat them with avidity, and to the milk and butter they communicate a good, a delicious flavor. I have seen it stated some years ago, that beef made from parsneps brings the highest price in the London market. I think, though I may be deceived by imagination, that pork made from feed chiefly composed of parsneps, is sweeter than when made from anything else.

This is not the only recommendation which may be justly bestowed on the parsnep. Among its other good qualities is this—that it requires no care or housing in the fall, as all other roots do. In all the middle, northern, and western states, potatoes, carrots, and turneps must be harvested and housed, or buried; and even when all this is done, and with good care and judgment too, a portion will frequently be ruined and lost by frosting, overheating, or decay from other causes. Parsneps, on the other hand, require no care in the fall, as they may be left without injury in the ground all winter. They may also be planted earlier in the spring, as the frost does not injure them, even at the earliest stage of their growth, so that this root crop interferes the least of any with employments which crowd upon the farmer in the spring and fall. It continues to grow through the whole season, until the ground freezes in winter; it requires no expenditure to gather or store it; it may be taken up on several occasions during the winter, and the roots that stay in the ground *all* winter, are not injured, and probably improved, by the frost. Parsneps seem to be eaten with more relish than either turneps or potatoes, and yield, in the raw state at least, a greater amount of nutriment.

Another advantage in cultivating parsneps is, that on a suitable soil—sand or loam, rich or well manured, and deep plowed—a large growth may be secured. At the rate of 1,200 bushels have been gathered from an acre of ground.

Parsneps may be planted either in spring, or in the latter part of summer, say in August or September. The ground should be well manured, mellow, and deeply plowed, and the seed sown in drills, so as to have plants to thin out, while preserving them at about eight inches apart. This will probably require at about the rate of two pounds seed to the acre. The drills should be two feet apart, and the space between well cultivated and kept clear of weeds. If sown in the spring, the earlier the better. A larger growth may be secured, however, by sowing the seed in September. There will be some considerable growth before the ground freezes up, and the growth will commence again as soon as the frost leaves the ground in the spring, which will continue throughout the whole season, without running to seed. They will thus have a growing season of about twelve months; whereas, when sown in the spring, they can grow only eight or nine months.

All the advantages of this root crop have not yet been named. Among them are these—thathey seem uninjured by either a wet or dry seat son, and that no insect nor bug attacks them at any stage of their growth. Observer.

* * *

Use of Tan-bark for Manure.

Messrs. Editors—I believe I promised sometime since, to give some account of Helderbergh Farming. I proceed now to fulfil that promise, although what I shall say will relate chiefly to myself, reserving for some future letter, perhaps, further remarks in relation to farming, as practiced by our hardy agriculturists.

You inquired of me in relation to my manner of applying spent tan-bark as a manure. I answer, I have been in the habit of using it more or less for several year. Having to haul it about one mile up-hill, I have never been able with my limited means, to apply more than about one hundred loads in one year. This is used up in various ways. The application of it to land in a raw state, unless it be spread and dried before it is plowed in, I conceive to be injurious, although I have never tried the experiment; consequently I first to begin in the summer, fill in one or two loads into my yard for fattening pork, say latter part of August; when that is thoroughly used up, I fill in again, making my yard tight so as to retain all of the urine. From that time until the winter sets in, I endeavour to keep the hogs dry by filling up the yard with tan-bark. While loading it one day, very busily, a lad of some ten or twelve years old, annoyed me exceedingly by inquiring what I did with so much of that bark; I replied, "I fat my hogs *on it*," which gave me rather a bad name—one man declaring he would not work for me, if I fatted my hogs on tan-bark. I let these yards remain until spring, when I cart out the manure thus made on my corn ground. It has all the effect of pure hog manure, which is said to be the best manure we can get for that crop, and produces pumpkins in a wonderful manner.

My next method of using in the manufacture of manure is, in my stables, especially my horse stable. To a span of horses I put in one load as bedding, eight or ten inches deep over the entire floor. This is, or ought to be, forked over every day for ten or twelve days; it will then do to cart out in large heaps, say three or four cart loads to the heap, and then a fresh load in the stable. This method is pursued until the hard, frosty weather prevents its use as bedding, after which I substitute straw until the warm weather in the spring. I have now a heap of some four or six loads which I have made in this way from my horses, since about the middle of March. Not feeding my horses hay, makes it entirely free from seeds; this I always apply to my carrot ground or garden. Enough should be kept under the horses to absorb the urine, and when it becomes completely saturated it should be taken out and fresh put in. The urine has the effect to turn it black, and will rot it very quick. A pile of thirteen loads which I made last year could not be distinguished from clear muck when carted out for wheat in September.

In using the bark for stabling my cattle, I will say that I have no cellar under my barn; in the absence of that convenience, I do as I conceive the next best thing—I cover my stable over some six inches with the bark, (and it makes a nice clean, soft bed for them;) the stable is cleared every morning of all that gets wet, and the remainder is leveled off until the whole is shovelled out; then again fresh is put in, and so on until frosty nights prevent its use. Straw is then added until the warm weather in the spring, when the use of bark is again resumed. In the course of the winter a large pile, say ten loads, is drawn near this deposit, and as soon as we are done stabling in the spring, the whole mass is forked over, and the ten loads in its own state, mixed with it—a layer of bark, and then manure, and so on until all is worked over. This remains until September, when it is carted out for a wheat crop. I also fill up my cattle yard occasionally in the fall and during the winter, especially in thawy weather; my aim is to keep my cattle yard dry; and occasionally during the summer I spread on a few loads, sufficient to keep my cows that I yard nights, dry and clean.

These are the only methods which I have used thus far to manufacture this article into manure. I have on hand at present some few heaps, drawn directly on the field where I intend to apply it, which I intend to fork over and mix with lime or ashes, and let it decompose in that way until it is fit for use. This is my first experiment in this direction. I have in one or two instances drawn out my yard manure in autumn, into heaps of three loads, and then covered these heaps with about half a load of bark, which I think has done quite well. Thus far my experiments in the manufacture of manure from spent tan-bark, and now for the result. This I must reserve for another letter, or perhaps let it remain till you come out here, about the first of July, when I will tell you all about it. Note we expect you here about that time.

Should you think this communication of any value to the agricultural interests of the country, and conclude to publish it, (which I hardly think is best,) I wish you would insert it in the Cultivator, as I am frequently asked by our friends here, such questions as are answered in the above hasty communication. Very respectfully yours. Geo. W. Durant. *Rensselaerville, May* 9, 1853.

Rust in Wheat Prevented by Draining.

L. Tucker—Under this head, in your eighteenth number, are some suggestions from a farmer in the western part of this state.

Observation and experience have convinced me that *too much moisture* in the soil is the cause of wheat being thrown out by frost, and that *thorough under draining* is the only remedy.

Every observing farmer knows that too much moisture is one *great* cause, if not the *only* cause of rust in wheat; consequently the dryer the soil is, the less liable the wheat is to be injured by rust. Thorough underdraining is the remedy.

The writer says: "when I moved to this country, I had no idea that our land would ever need draining, but this was when the ground was full of roots. Since these rotted out, there has been a settling down of the soil, &c. * * * I only know that I have fields which I would not now think of sowing with wheat, but to which purpose I should have made no objection ten years ago."

Is not this the experience of every farmer living *south of the lime ridge or ledge* in all the wheat growing sections of this state? While *north of that ridge*, no such results are experienced. This is my experience, having formerly owned a farm south of the ridge, on which wet places each succeeding year were found, and though under draining was extensively used, and with good effects, still these wet places each year called for an additional drain. Becoming tired of this, I sold that and bought a farm *north* of the lime ridge, and am exempt from the former difficulty.

Lands north of the ridge, which are *naturally* wet, should be drained, but those which were dry *before* cultivation, remain so *after* it. This is my observation and experience. Does the observation and experience of others corroborate it? M. *Fairmount, N. Y., April* 7, 1853.

Clearing New Land.

Lewis Sanders, a veteran agriculturist of Kentucky, recommends girdling forests, as far preferable to cutting the trees in a green state. He says:

Having possession of a body of unimproved land, and with crippled and restricted means, the first great question to be settled under the circumstances, was the best method to bring the land into a productive state. Grass was determined on as the ultimate object. To prepare the land to yield something in the shortest time, and with the least outlay of money, was the course to to be pursued. The first step was to deaden—girdle a few hundred acres—reserving useful timber only. This is an important operation on all clay soils, and in many places not sufficiently appreciated. By girdling a most beneficial process takes place in the soil, which is loosened and enlivened—yielding kindly to the plow, and being much more productive than lands from which the timber has been cut green and removed off. I know this fact from actual experience; the *rationale* may be discussed by others. The roots of the stump of a green tree will resist the operation of a plow, one, if not two or three years longer than the roots of a tree of the same growth, girdled and left standing.

Deaden your land, by girdling the useless timber, as soon as convenient after the sap is in full flow; this work to be finished by the 10th of August. At the end of four or five years it is easily cleaned up and made ready for the plow. Fire, judiciously applied at times, materially aids in the cleaning up. The roots being sufficiently out of the way to permit deep plowing, (the only sure method to save the soil,) two or three crops of corn may then be taken off. The cultivation of these two or three crops mixes the surface with the subsoil, leaving the ground in a better condition for the reception of grass seed than a virgin soil.

The Red Cedar for Farm Fences.

J. Hildreth, in the *Rural New-Yorker*, recommends the Red Cedar for farm hedges. He says:—

"The scarcity of timber makes us begin to think that some substitute must be used for fencing, and one inquiry is: What kind of tree will make the best hedge when planted for that purpose? The merits of the different varieties used, thus far, have been fully discussed, but I have never heard of the Red Cedar tree being spoken of as suitable for a farm fence, yet I believe that this, after all, is the variety of tree which will yet be used for such purposes more than any other, and does in reality possess more good qualities to recommend it for such purpose for our climate.

"The different good qualities are: It bears pruning to any extent, and at any season, and is improved thereby. It is subject to no diseases; it grows equally well in poor, thin soil, as in rich; it is not affected by long drouth or the coldest weather. Grain or other plants will grow even among the branches, so that no barren land is caused by the growth of its roots. It will be a protection from the sweeping winds that blow across our country in winter. It will form an agreeable shade for all domestic animals, and by a general adoption of this tree for fence, our whole country will be made beautiful by the cheerful appearance of these evergreens.

"I would be glad to awaken all readers of the *Rural* to this subject, for none, certainly, is more worthy of their attention. I have hundreds of these trees under my observation; some standing singly, some in groups, and others in lines; and none can be more ornamental."

List of States Fairs for 1853.

Vermont, ...	Montpelier,.....	Sept'ber,	13, 14, 15.
Kentucky, ...	Lexington,.....	"	13, 14, 15, 16, 17
New-York,....	Saratoga, ...	"	20, 21, 22, 23.
Ohio,............	Dayton, ...	"	20, 21, 22, 23.
Pennsylvania,..	Pittsburgh,.....	"	27, 28, 29, 30.
Michigan, ...	Detroit,.........	"	28, 29, 30.
Wisconsin,.....	Watertown,...	October,	4, 5, 6, 7.

◆

Milk and Cream.—It is asserted that milk always throws up a smaller proportion of the cream it contains, when of some depth in the vessel, than when shallow; and that more cream rises by diluting the milk with water, and rendering it less tenacious, although the quality of the butter is injured by this treatment.

Answers to Inquiries.

Cement Pipes.—I observe an inquiry relative to the use of hydraulic cement, or water lime, for water pipes. Having tried various experiments with this article, in view of laying an aqueduct, I came to the conclusion that it would answer no purpose at all, and was glad to sell off my remaining stock of cement, and purchase lead pipe. The recommendations in the *Agricultural Report* of the Patent Office, of this article, apply only to continually descending grades, as it will submit to no pressure without leaking, for the reason that the lower strata of the pipe, sets in a measure, before a thorough combination of the top strata can be effected, however expeditiously the work may be done. If your correspondent is prejudiced against the use of lead, I would recommend Ball's water pipes, as being cheap and durable. These are made with tubes of sheet iron, coated on the inside with this cement, and when laid down, are also laid in cement. Gutta percha makes very good pipe, but is much dearer, costing $1.50 per rod for half inch.

Speaking of the deleterious effects of using lead for the conveyance of water for culinary purposes, I will say, that where the water is kept continually running, the amount of lead dissolved in the small proportion of water used, would scarcely be perceptible. My aqueduct of 40 rods, with 400 pounds of three-eight inch pipe, discharges twenty-five barrels per diem, or about three tons of water, making over 1,000 tons per annum, or 25,000 tons in twenty-five years. Allowing the whole amount of pipe to dissolve in that time, which is not at all probable, then you would have 400 pounds of lead dissolved in 25,000 tons of water. We leave it for medical men to say how injurious this solution might be. But it is evident that solution ceases when an incrustation of the oxide is formed on the inner surface of the pipe. Lead will be superseded by glass at no distant day. It is a wonder that some cute Yankee who desires a fortune, has not started the business of manufacturing glass water pipes in this country. Junk bottles are blown for three or four cents, with an amount of material sufficient for five or six feet of water pipe. Honestus Stearns. *Felchville, Vt., April* 20, 1853.

White and Yellow Corn.—With regard to the inquiry about the mixing of white and yellow corn, I would say, in the first place, that the mode of mixing is by the flower from the tassel, falling or blowing upon the silk of the corn. Every kernel has a silk, and the neighboring tassel sends its flower by wind or insect upon the silk of another, thereby deciding the complexion and nature of the corn. The reason why the yellow will not mix with the white corn, is because the white corn generally blossoms about two weeks before the yellow corn does; therefore, there is no silk on the yellow corn for the blossoms of the white to fall upon. *R. R. Fulton, April* 8, 1853.

I have known white corn to mix with yellow, when planted at the distance of one-fourth of a mile, as well as "adjacently." B. *Dublin, N. H., April,* 1853.

Sulphate of Ammonia.—Will you please to inform me whether the Sulphate of Ammonia should be applied to the *earth,* around peas, strawberries, &c., or should it be applied to the *foliage?* A Farmer's Daughter. *Hockaman, Ct., April* 20, 1853.

The sulphate of Ammonia should be prepared by dissolving half an ounce in a gallon of water, and may be applied to plants in moderate quantities every *sixth* day. It may be used in an ordinary watering pot, and applied to both the foliage and the earth.

Bone Mills and Bonedust.—Where can I purchase the best machine for grinding or crushing bones, and what is the price of bone dust in Albany? W. S. H.

We have inquired for bone mills at the Albany Ag Warehouse; but Mr. Emery informs us that they have never kept them, and he does not know where they can be had, or which is the best if there is more than one kind. Our correspondent could probably procure one, by addressing R. L. Allen, New-York, who we think has advertised them for sale at his Warehouse. The price of bone dust is about two cents per lb.

Nova Scotia and Western Plaster.—A. F. S. inquires in the last number of the Country Gentleman, "the difference between Nova Scotia and Western plaster."

In 1849, I analyzed samples from Nova Scotia, and also from Springport, Cayuga co., N. Y. That from Nova Scotia was white, but not crystalized in the stone. It was nearly pure *sulphate of lime,* containing in different samples, from 33.5 to 34.1 per cent of lime—44.5 to 47. of sulphuric acid—18.9 to 20.4 of water, with very slight traces of iron and alumnia.

That from Springport, varied in different samples. I examined different specimens of stone as they were sent to be ground, and also the ground plaster, as it was furnished in market. They contained from 34 to 37 per cent of lime—30.5 to 42.1 of sulphuric acid—2.9 to 4.4 of oxide of iron and alumnia—3.7 to 6.5 of silica—4.8 to 5.2 of magnesia, and 13.6 to 21.5 of water. There was, also, a little bitumen or other similar organic matter, which gave it a blueish color. Some specimens contained *carbonate of lime,* which would somewhat diminish their value.

We see by this, that the Nova Scotia gypsum is the purest, but the impurities of the other are not in sufficient quantity to materially injure their value. That of Cayuga Lake, (Springport) is said to contain free sulphur, which would increase the value.

I have seen no account of experiments, to accurately test their comparative values, but have heard farmers say, who have used both, that there was little or no difference in their effects, although each is preferred by some persons, without, perhaps, any very definite reason for the choice. Wm. H. Brewer. *Ovid, N. Y.,*

Taxidermy.—In reply to your correspondent from Salisbury, I will give one way, the best of which I have any knowledge, for preparing birds for a cabinet. The requisite materials are a sharp knife, some annealed wire of a size suitable to support the bird to be set up, a dish of Indian meal or fine sawdust, for rubbing the hands dry occasionally, so as not to grease the feathers, and some arsenic wet into a paste with alcohol.

Birds in this latitude have their best plumage in May, June and July. The bird should be taken in hand before it has been dead long, or the skin will be tender. If the feathers have been ruffled in the pocket or hunting-bag, it is almost impossible to re-arrange them so that they will look natural.

In skinning, begin at the point of the breast bone, part the feathers, and run the knife back, cutting only the skin, until you have gone so far that by cutting off the extremity of the bird, there will be enough flesh to retain the tail feathers. Strip the skin up to the wings, and take the wings and legs off, at the joints nearest the body. Strip down the skin of the upper joint of the legs and wings, and take off the flesh. Strip the skin up to the head, and take off the head with the skull in it. Take as much of the brain out as you can with a crooked wire or other suitable instrument. Put the arsenic paste into the skull, wings, legs, upon the flesh holding the tail feathers, and rub it over the flesh side of the skin generally. If you are collecting for some one else, the skin is now ready to be laid away, or packed and sent to a distance, after putting in a little cotton to keep it in shape.

If you wish to set it up immediately, sharpen two pieces of wire, and run them down the whole length of the legs, following them with the thumb on the outside, so that they may not pierce the skin. The same course to be pursued with the wings, only the wires need run but half the length, unless you wish the wings extended. Another wire should be inserted in the skull, and another in the tail, and a block should be whittled out something the shape of the body of the bird, into which the wires of the skull, wings, legs and tail should be fixed. The skin can then be gradually sewed up, filling in about the block with cotton. The use of a block is, I think, better than running one wire from skull to tail, and fastening the wing and leg wires to it. The proper position, which is obtained only by studying the habits of the bird, can be given by bending the wires. The birds in the cabinet of Amherst College were prepared in this way. W. M. H. *Greenwich, N. Y.*

Morgan Horses.—I wish, with many of my neighbors, to ascertain through the columns of the Cultivator, whether the old Black Hawk horse, owned by David Hill, of Addison county, Vt., is a Morgan or not; and, if you please, give his pedigree. The reason for this is, the Cultivator is considered good authority among us, and we wish to be set right in this matter. There is one of his colts in this county, brought from Vermont last fall. J. A. Marshall. *Adrian, Mich.*, 1853.

The Black Hawk horse above referred to, is a genuine Morgan. He was sired by "Sherman Morgan," who was got by the old "Justin Morgan," the father of the race of Morgans.

Guano—*C. M. C.*—Guano can be procured at any of the agricultural warehouses in New-York, at two to three cents per pound, according to quality and quantity.

Crows and Corn.—"Will you please inform a young farmer, of the most effectual mode of preventing crows from pulling young corn? They have proved very destructive to my crops formerly." F. R. G.

The destruction of corn crops in this way often proves a serious evil, for re-planting makes but an uneven crop at best, and often a half-ripened one. As it is better to have fifty bushels of good and well matured corn, than twenty-five soft and poor, it is worth some trouble to repel the crows. This may be easily effected before planting, by first pouring hot water on a half bushel of the seed, and then a pint of tar, stirring it quickly. Every grain will become coated with a delicate varnish of tar, and if then rolled in air-slacked lime before planting, no crow will touch it. But, should this remedy come too late in the season, another equally efficacious may be used, and this is the common one of *stringing* the field. No crow will *enter an angle* formed by two suspended strings stretched on poles. A curious illustration occurred some years ago, on a long strip of *sowed corn* (for fodder) which was protected by a zig-zag string running from one end to the other. Within the angles formed by the string, not a blade was touched; but close without them, at each end, the whole crop was demolished. A crow is a remarkably wise fool, and this is a complete mode of circumventing him.

Hen Manure.—*E. B.* This manure, like guano, is too strong to be applied without admixture with other matter. Made into compost with equal parts of charcoal dust, pulverised or charred peat, or mould, it may be used for all crops, and it is said to be particularly valuable for fruit trees, and as a top-dressing for grass lands or grain crops. If used for garden purposes, it should be thoroughly mixed with the soil.

Ag. Papers.—*S. C. P.* will answer your inquiry.

Orange Trees.—I would like to know through your paper, the season for grafting the Orange tree, and also the soil best adapted to its growth, or any other information in relation to it, would very much oblige me, and perhaps some others. H. L. Ward. *Middleville, N. Y.*

The best time for grafting the Orange is the spring, just before the buds begin to shoot, or it may be performed as soon as the wood is sufficiently ripened in the fall. The soil best adapted for the culture is good meadow loam and decomposed manure, well incorporated.

☞ Lotan Smith, Esq., President of the Sullivan county Ag. Society, desires us to give notice that he has removed from his former residence, and that his address is "Bavayville, Sullivan county, N. Y."

Information Wanted.

Time to Sow Plaster.—In this neighborhood, there are different opinions as to the proper or best time to sow plaster. (The soil, gravel, clay and loam—mine is principally light gravel.) On meadows and pastures, the majority say as soon as the frost is out in the spring—a few say the grass and clover should be up and look green—the most say it is no benefit to wheat in this vicinity, and there is considerable wheat raised within twenty miles of this place. Now if any of your readers can give us any information, in regard to the best time of sowing plaster on meadows or pastures, and whether it is generally a benefit to wheat, they will do us a favor. Thomas A. Bemus. *North East, Erie Co., Pa., April* 7, 1853.

Raising Colts by Hand.—I wish to know through the readers of the Cultivator, if Colts cannot be raised by hand, the same as calves—that is, not let them run with the mare, but shut them up, and feed them with cow's milk. Young Farmer. *Oswego, N. Y.*

Reading about the cultivation of Onions in one of the back vols. of the Cultivator, it was stated that the seed was sown with great regularity and despatch, by a machine. I would like to find such a one, not costing too much. I bought one in New-York, last winter, made by Ruggles, Nourse & Mason, cost $3, and instead of increasing my crop to that amount as I hoped it would, it lessened it very much, by the irregular distribution of the seed.

Which do you think will be the cheapest manure for me to buy, to put on oat ground this fall for wheat; 100 bushels of ashes, cost $15, or 200 pounds of superphosphate of lime, $6? May not this latter article be prepared cheaper at home, according to the directions of the late Prof. Norton?

Which is the most profitable root to raise for feeding to stock, the Belgian carrot or the French sugar-beet? How long will the seed of the yellow locust keep good? A Constant Reader. *Orient, N. Y.*

Can you, or any of your correspondents, inform me through the Country Gentlemen, why the grass in our pastures, of five years standing and upwards, has, as the transmutationists would say, "turned to moss," as that seems to have taken the place of grass to a great extent, within a few years, in many of them, without respect to soil, condition, or situation. In places where there was good grass a year or two ago, the sod seems to have rotted, and is now covered with moss.

If you can give the cause and cure, you will oblige your friend, and perhaps others. R. F. B. *Ellsworth, Mahoning Co., Ohio.*

An Agricultural College at Last.—The friends of agricultural education throughout the country will be pleased to learn that the bill incorporating the New York State Agricultural College, has passed both branches of the Legislature, and will be put in operation at an early day. The trustees of the College are John Delafield, of Seneca; Henry Wager, of Oneida; William Kelly, of Dutchess; John A. King, of Queens; N. B. Kidder, of Ontario; Joel W. Bacon, of Seneca; William Buel, of Monroe; Tallmadge Delafield and Robert J. Swan, of Geneva; and such others as may be associated with them. Most of these gentlemen are well known to the farming community, as among the most able and zealous advocates of agricultural improvement, and will, without doubt, procure a board of instruction, who will carry out the long cherished idea of thorough, practical and scientific agricultural education. By the act of incorporation, the farm and grounds are to consist of not less than three hundred acres.

We reserve for a future time, a more extended notice of the details of instruction and organization. The features are essentially the same as those embodied in the articles on "An Agricultural College," which appeared in the early numbers of this journal. We wish the institution prosperity, usefulness and a long life.

The Dairy.

Milk and Butter.

In compliance with the suggestions of several of our subscribers, we propose hereafter to devote a page or two a month, to this important branch of domestic economy; and we solicit communications for this department from all those engaged in the dairy business. In the mean time, we believe we cannot render our dairymen and women a better service than to copy the annexed article on Milk and Butter, recently written by Dr. Lyon Playfair, well-known as one of the most thorough and practical scientific men of the age, for the "Cyclopedia of Agriculture," a work of rare merit, now in course of publication in London:

The preparation of butter from milk has been much studied by scientific men, and the results of their researches are of practical interest. Milk contains 87 per cent of water, in which are dissolved caseine, sugar of milk, and certain inorganic salts; in this solution is suspended, in the form of an emulsion, about 4 per cent of butter. The suspended butter is in the form of little globules, which seem to be surrounded with a little shell or skin, supposed to consist of coagulated caseine. The theory of the formation of butter is very simple; the little globules are broken by agitation, and the butter coheres together in a mass; but it is well known that, in the practical carrying out of this process, considerable difficulties arise, which modify the results of the process. The variations in the result depend, upon chemical transformations suffered by the other constituents of the milk during the process, and these changes must be fully understood before the dairy farmer can have an intelligent knowledge of the important and delicate operations entrusted to him. The first point to be considered is the changes which milk experiences by exposure to the air at different temperatures.

Caseine, or the cheesy part of milk, being a soluble nitrogenous body, is apt to run into putrefaction. All nitrogenous substances have this tendency in a greater or less degree, and rapidly suffer the change when under the influence of other bodies in the act of decay. For example, if a fresh piece of flesh be placed in a perfectly new vessel, which has never contained flesh previously, it will often keep for weeks in hot weather, if there be no decaying emanations in the air; but a piece of the same flesh kept in a vessel which has contained bad meat, will in a few days enter into a putrid state. The exciting cause of change may be almost infinitely small, but it still acts just as yeast does on sugar, and and produces effects on the whole mass: this kind of chemical action frequently occurs in the dairy. Any decaying emanation, which may either proceed from a drop of spilled milk, or from some external source, communicates to fresh milk a tendency to pass into the same state, and when the condition of change has once begun, it is extremely difficult to arrest its progress. The effects may not at first be perceived; butter may be made from milk with this putrefactive taint in all apparent goodness, but it soon acquires a bitter taste, and loses its original quality. The first practical lesson then to be attended to in the dairy, is the preservation of absolute cleanliness. The vessels containing the milk must not be porous, even the walls and shelves should be non-absorbent; cleanliness even to affectation should be insisted upon. The dairy should be away from the farm yard, distant from open drains or sewers, and should be cleansed with water quite free from organic matter. When milk is spilled it should be immediately removed, and the place on which it fell should be washed with fresh portions of spring water. The neglect of these seemingly excessive precautions, is the principal reason of the inferiority of the butter of many districts. There are, however, two kinds of change to which milk is liable, either under the influence of decaying matter or by being kept for some time. One of them is known as putrefaction, the other as decay. Putridity in milk ensues when the caseine enters into the state of change to which all nitrogenous bodies are subject in limited access of air. As the result of this transformation, ammonia, butyric, capric, caproic, and caprylic acids, and various badly smelling gasses are produced. This state often results in winter, when a diminished temperature prevents the coagulation of the caseine by the lactic acid, and the consequent removal of the former from the immediate action of the air.

In summer the temperature induces the speedy formation of an acid, which, uniting with the alkali that holds the caseine in solution, precipitates it in an insoluble state, and therefore withdraws it from the influence of the air. The primary action, both in this state of decay and putrefaction, is in the absorption of oxygen by the caseine, which, being once put into action, is sufficient not only to continue a state of change in itself, but also to effect transformations in the other ingredients of milk. When the caseine has been rendered insoluble by the acid formed in the way described, it enters with difficulty into the former state of putrefaction, and is therefore less liable to act upon the butter with which it may be mixed. These general remarks will suffice to explain the precautions used in preserving milk for the purpose of making butter.

The theory of making butter, either from cream or from mik is the same, with only slight differences due to their state. Cream consists of the oily globules which, from their lightness, have risen to the surface, but still covered to a great extent with their cheesy skins, and still swimming in a solution of sugar of milk. It is the presence of these ingredients that enables cream to become sour. The explanation of churning is, therefore the same, whether cream or milk is used, the only difference being in the labor required to effect the separation of the butter. During the process of churning, the skins of caseine surrounding the globules of butter, are broken by the mechanical agitation, and the butter itself being brought into contact, coheres together into a mass. The air introduced during this operation, exerts a primary action on the caseine, causing it to form lactic acid from the sugar of the milk, and as a result of these affinities, the temperature rises several degrees. The acid thus formed, aided by the increased temperature, produces a coagulation of the caseine, and thus renders easier the coherance of the butter, by aiding in the withdrawal of the covering of the globules, and by altering the character of the liquid which had suspended them in the form of an emulsion. The fatty matter thus obtained, (butter) is not pure, but still contains foreign matter, especially caseine, which is the ingredient that produces its rancidity. Pure butter from the cow was found by Bromeis to consist of:

Margarine,	68
Oleine,	30
Butyric, capric and caporic acids, with glycerin,	2
	100

But ordinary butter, besides varying in the proportion of margarine and oleine, according to the nature of the food, and the period of the year, always contains in addition to these ingredients, cheese, water, and sugar of milk, together amounting to from 10 to 16 per cent. It is very difficult to get rid of all the cheesy matter, as it is now in an insoluble state, but it may be removed to a very great extent, by washing the butter in repeated portions of water, and decanting off the particles of caseine which suspend themselves in it. In the best kinds of butter, the cheesy matter rarely amounts to more than 1 per cent; in the inferior varieties there is often several per cent present. As a general rule, the more caseine that is left in butter, the more is it apt to become rancid. To render this intelligible, attention must be given to the normal ingredients of pure butter. Margarine and oleine consists of margaric and oleic acids, united to an organic base called oxide of lipyle. Margaric acid consists of 34 equivalents of carbon, 33 equivalents of hydrogen, and 3 equivalents of oxygen; while oleic acid is constituted of 36 equivalents of carbon, 33 equivalents of hydrogen, and 3 equivalents of oxygen. Now it is known that the latter acid absorbs oxgen from the air with great avidity, producing peculiar compounds, among which, however, margaric acid has notyet been recognised. Still the abstraction of 2 equivalents of carbon, in the form of carbonic acid would be sufficient for its conversion, and this formation is so simple and common an occurrence in the organism of animals, that oleic acid may be transformed into margaric acid during the formation of the milk, thus producing more of the solid fat at one time than at another, and causing the variations in the firmness of the butter made from it. It is, however, quite gratuitous to suppose, with some authors, that this transformation takes place during the churning. When oleic acid absorbs oxygen from the air, it acquires a very rancid smell, which is one of the causes of rancidity in butter. But the main cause is the production of butyric, capric, caproic, and caprylic acids. These acids are probably not present in any quantity, in perfectly fresh butter, but they are quickly formed by the cheese left in it operating on the sugar of milk. Butyric acid has an odor of human excrements; caproic acid of sweat; capric acid has a rank smell, resembling that of a goat, while caprylic acid is the only one which is not obnoxious to the senses. These acids are volatile and soluble in water, and as rancidity of butter depends in a great degree, upon their being present in appreciable quantity, a knowledge of this fact may be employed in depriving butter of its rancidity. For this purpose it should be melted in twice its weight of boiling water, and well shaken with it. By this means, the acids are dissolved, and partly volatilised, the rancidity being thus removed. At all times butter may be purified by repeated melting with fresh portions of water, the pure oil rising to the surface, and leaving the impurities in the water. The butter loses its consistence by this operation, but that may be restored to it, at least to a great extent, by pouring it when melted, into a large quantity of ice-cold water. As the formation of the badly smelling volatile acids depends upon the presence of caseine, this mode of purification removes the injurious ingredient. At the same time the butter becomes less pleasant to the taste, the water having taken up the small quantity of foreign substances which give to fresh butter its agreeable fragrance and taste. These, some chemists are inclined to believe, are the caprine, caproine, and carpryline, but the properties of the two former bodies do not countenance this supposition. Some of the compounds of caprylic acid have a fragrant odor like that of the pine apple, but the smell of capryline itself is little known.

It is scarcely necessary to offer any explanations of the manner in which salting butter aids in its preservation. A *saturated* solution of salt is found incapable of permeating many animal substances—such as cheese, and is found to draw water from them, so as to actually dry them, although surrounded by a liquid. Organic matter thus dried cannot pass into putrefaction, and the caseine in this condition cannot exert those changes which are necessary to the transformation of the other ingredients of the butter. Salted butter should, however, be packed tighly in jars; not only to preserve it from the access of oxygen, but to prevent the solution of salt gratifying its affinity for moisture, by withdrawing it from the air, instead of from the caseine. Fresh butter, when laid in a syrup of sugar, keeps even better than salted butter. The practical application of all the explanations of the making of butter resolve themselves into the advice of keeping an absolute purity in the dairy, and the removal of all caseous particles from the butter when made.

Cheese Making.

We make the following extract from the Report of the Committee on Cheese Dairies, at the last exhibition of the Herkimer County Ag. Society:

"The great desideratum in cheese making is to form it as near a solid as possible, and still retain moisture enough to produce a buttery texture in the cheese. The more compact the cheese is welded together and destitute of holes, or pores within, the less salt is required to preserve it from tainting. Salt is used as a controlling agent, to suppress the fermentation and decomposition, introduced and carried on by the combined action of heat and rennet. Hence the necessity of the two latter agents being allowed to finish their work and expel all the fluidical properties of the milk before the curd is cooled, or salt added, as either are antagonistical to the agents first used, and if added too soon, rennet will be held in solution with whey in the curd and will not press out, and will cause a rapid fermentation in the cheese when exposed to summer heat, unless salt enough is added to suppress it; the whey will then be held in the cheese and will sour and prevent the curd from wielding, and prove to be a bad cheese for any market.

The committee feel warranted by their own practical experience, and their observations in examining Diaries this season, in urging upon the Dairymen of Herkimer Co., a studious observance of the following, as cardinal points in successful dairying, viz: Good condition and perfect health of cows at all seasons of the year. A uniform and plentiful supply of nutricious food for them, with perfect quiet; plenty of good water, requiring but little exercise to obtain a frequent supply; warm and dry stabling in winter, with quiet and careful handling; thorough and quiet milking at particular hours by the same hand; uniformity of good health in all the herd of cows, that the milk of all may be as near as possible of a sameness, as the strength of coherance in all solids depends upon strict affinity in their constituency; a uniform application of all the agents to the whole mass, in heating, cooling, working, salting, &c., making all the changes from cold to warm and from warm to cold, slow and uniform through every part and particle of the whole, that the affinity here spoken of may be preserved through the whole and to the last, and a more perfect solid may be the result of the practice. No rennets should be used except from calves in perfect health, as one unhealthy stomach might cause much trouble to the cheese maker, and misdirect the search for its origin.

And last yet not least, after all has been well done, no reliance can be placed upon the result of a season's operation, without curing rooms, so constructed as to adapt the temperature to the constitution of the cheese, and protect them from the influences of the sudden and extreme changes that our climate is subject to.

Nature has established the fact, that no county in the State has facilities for making better milk than Herkimer; but it is to be feared that the old traditionary habit (too much adhered to,) of letting cheese cure themselves in some place least needed for other purposes, will be the means of her being rivalled in her merited reputation for fine cheese."

A Word to Men of Wealth—I mean those that feel as though they could spare a few dollars for a good cause—that is for the advancement of the science of Agriculture, or the means of diffusing the knowledge already attained among the farming community more generally. My plan is, for such men as have a desire for the advancement of the science of agriculture, to order such works as "The Cultivator," or "The Horticulturist," to be sent to some young men of their acquaintance, who follow farming, or contemplate doing so, for a business. Not that I think that the consideration of the cost of such works, prevents them from reading them. The reason is, that they are not aware of the existence of such works, or the value thereof to the agriculturist. V. S. *Buffalo, N. Y.*

A Good Feeder.—Mr. Isaac Landis, a Lancaster (Pa.) farmer, recently sold forty head of fat cattle to a Philadelphia butcher, at $115 per head, amounting in all to $4,600.

☞Catalogues of Short Horn and Devon Cattle, offered for sale or to let, by L. G. Morris, Esq., of Mount Fordham, can be had at this office.

Horticultural Department.

Shaping Trees and Shrubs.

Who has not observed the great difference in beauty between a handsomely-shaped tree, and one of uncouth or distorted form, of the same species? How often do purchasers of ornamental shrubs and trees anxiously search for symmetrical specimens—forgetting, or not knowing, that the most irregular may be easily pruned into any desired shape? If the Dutch gardeners display so much skill in training vegetable growth in peacocks and hedgehogs, American gardeners may find an appropriate exercise of their skill in imitating the graceful and beautiful in nature.

At the present season, or during the commencement of vigorous growth, this desirable object may be most easily accomplished. By occasionally removing needless shoots, but more frequently shortening-back such as are overgrown or pinching-in those that threaten to become so, and by lopping certain portions to induce dormant buds to push where branches and foliage may be deficient, a degree of skill may be exercised, not unworthy of comparison with that of the artist who developes a beautiful statue from a shapeless block of marble.

Even small plants, which otherwise would grow tall and meagre, may be made to assume a bushy and thick appearance, by pinching off the ends of the leading shoots while they are young. The English gardeners have acquired a skill in managing in this way their pot plants intended for public exhibition, that is really astonishing to those who first witness the rich and symmetrical masses of flowers and foliage which they are thus enabled to present to view.

A great error is often committed when flowering plants are placed in open ground, by crowding them too closely together, giving them too much the appearance of weeds. They are much the best when every plant is allowed full room to expand. When crowded, the flowers are fewer and more imperfect, and the plants and foliage slender, and greatly inferior in beauty to the dense and rich mass of well developed leaves and bloom of a freely growing uncrowded plant.

Liquid Manure for Fruit Trees.

Cultivators of the pear are often puzzled ot guess the reason that frequently the same tree bears fruit of the best quality, and at others nearly worthless, a fact familiar to all pear raisers. Perhaps this difference is more striking in the case of winter pears, which are sometimes yellow, melting, and delicious, and at others, green, hard, dry and tasteless. We are satisfied that the manuring and cultivation which they get, has a large influence in the matter, and have ascertained that some sorts, to be really fine, must have a warm and rich soil; such for example, as the Easter Beurre, and Chaumontel. We are inclined to think from some little observation, that liquid manure will yet be found to contribute greatly to the full development of the quality of some sorts of pears, and for the information of such as may wish to try it, we here give Dr. Lindley's remarks on the best time for its application. "For fruit, the proper time for using liquid manure, is when the fruit is beginning to swell, and has acquired, by means of its own green surface, a power of suction capable of opposing that of the leaves. At that time, liquid manure may be applied freely, and continued from time to time, as long as the fruit is growing. But at the first sign of ripening, or even earlier, it should be wholly withheld. If liquid manure is applied to a plant when the flowers are growing, the vigor which it communicates to them must also be communicated to the leaves; but when leaves are growing unusually fast, there is sometimes a danger that they may rob the branches of the sap required for the nutrition of the fruit; and if that happens, the latter falls of."

It may perhaps be well to add, that liquid manure, like all other kinds of watering, should never pe poured on the surface about the trees, as this will only harden the crust, without reaching the roots. A few inches of the surface should first be removed, the liquid then applied, and the earth replaced, or else a thick mulching given. The practice of making holes about the tree with a crowbar, and pouring the liquid into these holes, may succeed on porous soils.

Experiments with the Curculio.

The number of remedies is a sufficient proof of the extent of the damage committed by these coleopterous rogues, as well as of the difficulty of circumventing their attempts. It would be somewhat interesting, and we fear rather frightful, to estimate the aggregate amount of damage committed by them in the United States; probably it would amount to at least half a million of dollars annually. We therefore cheerfully give to our readers every remedy which promises any prospect of success, for their trial. One of the latest we have seen, appears in the Pennsylvania Farm Journal, and consists in placing a small iron furnace filled with live coals, on a high stool, as near to the lower branches as safety will admit, and then sprinkling pulverised sulphur lightly over the coals. It is done early on calm mornings, so that the fumes of the sulpher pass up through all parts of the tree. The writer states that after several experiments, he found this invariably to bring down the curculios, and to give him good crops among trees which when neglected yielded nothing. Cultivators of fruit may easily ascertain by trial whether this is more effectual, or more easily performed than the jarring method.

A remedy for that pest of the smooth-skinned fruits, the curculio, has been suggested. I intended to have communicated it to you before this; I trust, however, it will be in time to enable horticulturists to try it and test its efficacy. A friend of mine mentioned it to me, stating that he had tried it last year with perfect success.

Wood ashes, thrown over the trees when the dew is on, or when the leaves are wet, for a few times, (three or four, unless it should be washed off by a shower,) will be sufficient to prevent the attack on the fruit by this destructive insect.

If the ashes could be sifted on dry, it would be best; if not, they may be a *very little dampened*, just sufficient to enable you to throw them to the top of the tree with the hand. A coarse bag filled with the ashes, and hung on the end of a pole, would be a good arrangement for sifting, by shaking it over the tops of the trees. This sprinkling of the ashes should be commenced as soon as the

FUCHSIA MACRANTHA.

curculio commences to sting the fruit—about the time fruit sets, and the blossoms fall. My principal object in desiring you to publish this in your valuable paper, is to induce as many as will to try the experiment this year, and as soon as satisfied, to communicate the result to you. A. S. R. *Hudson, April* 16, 1853.

How to Save Plums.—One of my neighbors has been successful with his, in this way; he threw into the trees unleached ashes, three mornings in succession, when in the fullest bloom. He tried it on a part of his trees one year, and saved them, while the others failed—the last year on the others, and saved them. W. Humeston. *Strongsville, April* 4, 1853.

Culture of the Fuchsia.

The Fuchsia is a favorite with all lovers of flowers, and is well adapted for cultivation by all. For while the hot-house and the green-house may be ornamented with one or other of the varieties of it every month in the year, the cottager may enjoy its beauty in his flower plot during the summer, and keep it in a dormant state in his cottage during the winter, to embellish his garden again another year. There are several ways to grow this flower in perfection, according to the fancy of the amateur. At this season of the year the old plants, are breaking out with quantities of young shoots. These may be taken off when an inch or so in length, will strike readily if potted in white sand, or peat and sand, under a hand glass in a green-house or warm room. The glass should be taken off, and the moisture wiped from its inside daily; if there is any hot-bed, they will root more quickly if placed in it. When rooted they should be potted off singly in small pots. The compost may be peat, (or leaf mold) loam and old rotten manure in equal parts, with the addition of a sixth part of white sand. In a green-house they should be syringed freely as soon as the plants get six or eight inches high, and as the roots get to the outside of the pots, they should be shifted into larger. If it is intended to bloom them in the green-house, the shifting may be repeated two or three times before July, if it is wished to have a large plant. Partial shading will add to the beauty of the foliage, and the supply of water in hot weather must be liberal at all times. In June, or before, in situations where there is no fear of a low temperature at night, Fuchsias may be turned out into the open borders. A little mulching round the stems will materially benefit them. In the autumn, before the frosts set in, re-pot the plants, or put them in old boxes and remove them to the green-house, or a room to which frost cannot get access, to preserve them through the winter. Fuchsias in pots placed out of doors during summer and autumn, where they get the morning sun only until 9 or 10 o'clock, will be found to bloom profusely; and their flowers will be finer than if fully exposed to the sun's rays all day. The old plants of last year may be made very beautiful objects, if at this season they are shaken out of the old compost in which they have grown, and the *lower* branches cut off close to the stem, so as to convert them into standards. The heads should be cut in moderately, and they should be immediately re-potted in the compost above recommended, in a pot considerably larger than that used last year. Place a strong stick, to which secure the stem firmly, as the wood is very brittle. As the young shoots grow, stop them as soon as they have six leaves, by pinching off the end of the shoots; this must be repeated several times for the next three months, and will produce a thick, bushy head, which, during autumn, will be covered with bloom.

Of late years, the varieties of the Fuchsias have become almost as numerous from increase by seed, as Dahlias and other florist's flowers. The finest, undoubtedly, are those which, retaining the old type of a purple corolla and crimson sepal, have an improved form and greater depth or brilliancy of color. Of this character, Corallina, Elegantissima, and Globosa, will be found some of the best. The next best (and by some more admired) varieties are those with white sepals, and purple, violet, or rosy corollas; of this class, Psyche, Mad. Sontag, Eliza Milliez and Gaylad, are good. There is a class with crimson and scarlet in various shades, in both corolla and sepal; many of which are remarkable for size, both of flower and foliage, but they are by no means so desirable as either of the former. Still for variety, some of them can hardly be discarded. Of these, Perfection and Magnificent are fine. Two distinct *species* of Fuchsias, from the above, have, within the last few years, been added to our collections, the Fuchsia fulgens and corymbiflora; and which are fine objects where there is ample space. F. Serratifolia, is a fine winter plant; some persons complain of a difficulty in its cultivation, but all that it requires is to give it plenty of pot room, and to take care to keep it clear of the red spider in autumn. On the approach of cold weather, it must not be allowed to receive any check from being in too cool a house; then it will bloom freely from January to April, or later, in a warm green-house. B.M.

Kitchen Garden.

Sea Kale.—This is a very excellent vegetable, and one which, from its similitude to asparagus, is liked by most persons to whom that vegetable is agreeable. If raised from seed, it may be sown in the fall or in early spring. The plants should be transplanted like young cabbages when three inches high; and if sown in the fall, they should be protected by a frame and lights, or by a little straw thrown lightly over them. In spring they should be planted out a foot apart every way, until October, when they will be strong and fit to plant out permanently. The bed must be deeply trenched and well made, as if for asparagus, with coarse manure at bottom, and very rich earth at top. It must be well drained if the subsoil be wet. The bed should be marked off into squares three feet every way, and three strong plants should be planted eight inches apart at the intersection of the squares, forming a hill. Keep the bed hoed clean, and when the frost sets in and the leaves of the kale die away, they should be cleared off the bed, and a thick cover of manure, leaves, or seaweed, should be put all over the bed, to remain through the winter. After the beds have remained thus several weeks, the crowns of the plants should be examined, and when the shoots have grown four or six inches long, cutting for the table may be commenced.

At any time the growth may be induced earlier if wished, by turning an old box or a large flower pot over each hill of plants, and then covering the bed with hot manure from the stable yard, which will force them without further trouble. The plants should not be cut too much the first year, and as the spring advances the covering should be taken off, (or dug in, if manure) and the growth of the leaves encouraged by the same treatmeant as for cabbage, through the summer months, by which means they will be strong and yield well the following year. The bed will last for years, being dressed annually like an asparagus bed. Salt may be given in so doing with advantage.

Brussels Sprouts.—This is a species of cabbage, of the same kindred as the Savoy, but with this difference, that after having grown two or three feet in height, it throws out small cabbages resembling miniature Savoys, all up the stem. They grow to the size of a small orange, when they are fit for table. Every plant furnishes a number, and those who have eaten them in Europe, where they are in universal use for winter, know them to be one of the most delicious of the cabbage family. The seed should be sown in April or May, and be transplanted exactly as directed for Broccoli. In the fall the large leaves of the plant should be broken down, to encourage the growth of the sprouts. They should be boiled quickly till tender, and very well drained; and they will be found a valuable addition to the table. Their flavor is improved by the early frosts.

Rhubarb.—This is a most wholesome and desirable plant for early spring. It precedes gooseberries, and makes excellent pies; and like the above vegetable, is of much more general use across the Atlantic than here. When stewed alone in a little water and sugar, and when eaten cold, with bread, it is a good dish for children. To grow it from seed, it should be sown in spring, in drills an inch deep, and a foot apart, and kept clean from weeds by the hoe. When two inches high, thin them to three or four inches apart, and in October they should be planted out in a permanent bed. This should be dug at least eighteen inches deep, and well manured with coarse, stable manure. Then plant the roots two feet apart in a row, with four or five feet between the rows. Cover the bed over six inches deep with leaves or litter in the winter. Every fall the bed should be dug over *with a fork*, and covered with litter and some manure, and it will produce for years. The best way is to purchase roots, cut them up into as many pieces as the crown separates into heads, and plant them, because, from seed, it will be three years before the rhubarb can be used. The rhubarb may be forced exactly in the same way as we have directed for sea kale, by covering boxes or large flower pots, and heaping hot dung over them. The stalks of the leaves are the parts eaten, and when thus grown under cover they are nearly white, and the better in flavor. The roots may be grown in this way also, without manure for forcing, if taken up in November and placed in boxes of earth, and put under the stage of a green-house. By this means the frost being excluded, it will grow naturally and be ready in February. There is much difference in the quality of rhubarb; that of which the stalk is green is far preferable to that with red stalks, which latter often has too rank a flavor to be agreeable.

Scotch Kale, or Borecole.—This is a variety of winter cabbage, giving quantities of sprouts and leaves for winter use, being improved in quality when touched with frost. The seed should be sown in May or early in June, and be transplanted 2 feet apart, and treated similar to summer cabbages. In the south, and in warm positions in the western states, they will generally bear the winter. The best way is at the approach of winter to take them up, and plant them close together in trenches, covering with earth up to the lower leaves, and then straw or litter over them. A better way still, is to set them up in the same way on the floor of a light cellar. Best sorts: Green Curled Scotch, and Dwarf Curled. B. M.

Destructive Insects on the Grape.

I have been much troubled for several years by a worm upon my grape vines, and desire to know if there is any way to prevent them from destroying the vines. The egg appears to be deposited by a large yellow bug, striped with black, something larger than what is called a tumble-bug, but of different color. It deposits its eggs upon the under side of the leaf; they soon hatch, not more than one-eights of an inch in length, and arrange themselves along the edge of the leaf, from fifty to one hundred in a place, where they commence eating, and destroy all before them. They increase in size rapidly until about an inch in lengh, when they disappear. I have destroyed hundreds of bugs and thousands of worms by crushing the leaf. They commence as soon as the leaf puts forth in the spring, and continue to feed upon them and the blossom until the latter part of sixth month. My vines have been almost stripped, and I have almost despaired of having grapes, although I have been laboring with them for six years. Please inform, though your journal, a remedy if there is any. A Subscriber. *Quakertown, Pa.*, 3 *mo.* 18, 1853.

The insertion of the above has been unintentionally delayed, but we hope it may not yet be too late. We have had no experience with the insects mentioned—those of a similar character in habits and destructiveness are described in Harris' Treatise on New-England Insects, from which we may, perhaps, furnish some useful suggestions. We incline to the opinion that the "worm" caterpillar is not the progeny of the large beetle, but entirely distinct, and that the two only happened to occur together on the vine.

There is a large beetle (*Pelidnota punctata*) belonging to Linneus' large genus of *Scarabœus*, that often proves quite destructive to the grape. It is about an inch long, oblong-oval, the wing-covers a dull brownish yellow, with three distant black dots on each; thorax darker, slightly bronzed, with a black dot on each side; body and legs, a deep bronzed green. The leaves of the grape are their only food and they are often very injurious. Their larvæ live in rotten wood. If this is not the beetle described by our correspondent, it must be quite similar in character and habits, and the same remedy applies to both, namely, picking off and crushing.

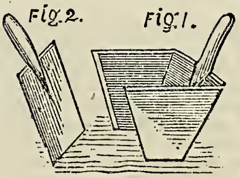
The other insect, nearly resembling the one above described, is the larva of the *Selandria vitis*, a saw-fly or Hymenopterous insect. The following is Harris' description:—

"These flies rise from the ground in the spring, not all at one time, but at irregular intervals, and lay their eggs on the lower side of the terminal leaves of the vine. In the month of July the false caterpillars, hatched from these eggs, may be seen on the leaves in little swarms, of various ages, some very small, and others fully grown. They feed in company, side by side, beneath the leaves, each swarm or fraternity consisting of a dozen or more individuals, and they preserve their ranks with a surprising degree of regularity. Beginning at the edge they eat the whole of the leaf to the stalk, and then go to another, which in like manner they devour, and thus proceed from leaf to leaf, down the branch, till they have grown to their full size. They then average five eights of an inch in length, are somewhat slender and tapering behind, and thickest before the middle. They have twenty-two legs. The head and the tip of the tail are black; the body, above, is light green, paler before and behind, with two tranverse rows of minute black points across each ring; and the lower side of the body is yellowish. After their last moulting they become almost entirely yellow and then leave the vine, burrow in the ground and form for themselves small oval cells of earth, which they line with a slight silken film. In about a fortnight after going into the ground, having in the mean time passed through the chrysalis state, they come out of their earthen cells, take wing, pair, and lay their eggs for a second brood. The young of the second brood are not transformed to flies until the following spring, but remain at rest in their cocoons in the ground through the winter."

The best remedies for these larvæ, are, dusting them with air-slaked lime, washing or syringing them with a solution of one pound of common hard soap in five or six gallons of rain water, or the similar use of a solution of one pound of whale oil soap in seven gallons of water.

Transplanter.

Permit me to introduce to your favorable notice, an invention of T. D. Stetozon, of Middleborough, Mass., called "Stetozon's Transplanter."



The instruument represented in the annexed figure, consists of a sort of spade, with side cutters, to be pressed into the earth, near the plant to be raised; when the blade, fig. 2, which is made to fit the wings, (or side cutters) is forced down on the side opposite the spade, when the plant, with the adjoining earth unbroken, may be raised, removed, and planted in another cavity previously made by the same instrument. D. T. Brown

◆

To Protect Vines from Bugs.—Make boxes from 15 to 18 inches square, and 6 inches high, without top or bottom of course, and place them on the hills before the plants are up, and a striped bug will never touch them. D. M. W. *Swanton, Vt.*

Culture of Melons.—I plant my Melons and Cucumbers by digging a hole 16 or 18 inches deep, and as far over, and fill with composition and good soil, and they keep green until the frost comes, rain or shine, and bear five times the quantity, being five times as large, and the melons are far superior in flavor, while those planted in the common way, die by drouth or heavy rain, and the melon is unripe, unhealthy and worthless, if flooded at the roots. Phineas Pratt. *Deep River, Ct.*, 1853.

Vegetation.—Notwithstanding the inauspicious nature of the weather, which for a time past has greatly retarded the progressive development of vegetation, it may at length be considered but little, if at all, behind the period of former years. The cherry, the plum, and in warm, sunny situations, the peach, have each profusely put forth their blossoms, affording a richly formed bower to the joyous revelling of the chipping sparrow, the yellow bird, and some other of the early visitors of spring.

The Grazier.

Profits of Stall Feeding.

I notice in a late number of your paper, a statement of the profits of feeding three cows, by "Vermonter," with some plain common-sense remarks, inviting farmers to transmit their experience to the columns of the Cultivator, for the benefit of its readers. He culled three cows from his dairy herd, and stall fed them at a very fair profit, viz, $23. I am also a Vermonter, and hold that we cannot be easily beaten in the profits of farming by other localities, whenever we put in requisition the full resources which nature has given us.

I culled one cow, from my limited number of four, dried her 1st Sept.; fed with pumpkins and short grass, until 20th Nov., then with corn-stalks, hay and corn in the ear, ground, until the 22d of March, when I sold her to go to Brighton market, with the following results:

Value of cow on 1st Sept.,	$15 00
Grass $2, three cart load pumpkins $2,	4 00
Hay and other coarse feed through the winter,	7 00
Corn, with the expense of carrying 3 miles to mill,	24 00
Total cost of cow when fatted,	$50 00

Estimated to weigh 1000 lbs.; sale on foot at the barn, $72; profits $22.

Her blood was three-fourths Native, one-fourth Durham. She was large and very fat, worth at Brighton, $7,50 per 100 lbs., which left $3 for drift by railroad, just a fair compensation.

I also stall fed 123 weathers, all of my own raising, four years old last May and June; a cross between the full blood Spanish Merino and Saxony; very fine quality of fleece, a race which all wool-growers know never attain to a large size. I was offered $2 per head for them in Nov., and my neighbors considered it a very generous offer; it was all they could have brought at that time. I commenced feeding them with corn unground, on the 24th of Nov., and followed it without change, (except in quantity) until the 29th of March, when they went to Cambridge market, with the following results:—

Sale, 123 head at $6,60 per head,		$811 80
Value of sheep in Nov.,	$246 00	
20 tons English hay of good quality,	200 00	
200 bush. of corn at 80c, (the market price,)	160 00	
Cost of getting them to market by railroad,	44 28	
		650 28
Profit,		$161 52

Or a fraction over $1,31 per head.

It is a satisfaction to the grower, to be enabled to say, that these sheep, considering the superiority of blood for wool-growing purposes only, the fineness in texture of fleece, and the number raised and fatted in one flock, were deemed by the sheep dealers at Cambridge, equal if not superior to any ever taken to that market, from any one flock in Vermont.

And now a word as to the manner of feeding. My sheep and cattle yards have open sheds, with a southern or eastern exposure. Cattle are stabled nights and mostly in stormy days; sheep go out and in at their pleasure; pure, soft aqueduct water in each yard, with a box of St. Ubes' salt constantly supplied, which I consider quite as essential in winter as summer; yards and sheds kept dry by straw and other coarse litter. A large stable connected with my sheep yard, enables me to shut them off when putting hay into their racks, or grain into their troughs, so that they all go to their feed together, and share as equally as possible. I commenced this flock of weathers, with twenty quarts of corn per day, and from time to time, increased gradually as they would bear it, without producing the scours, until they would take 70 quarts per day, with as much good hay as they would eat without waste. It will not pay the cost and trouble to grind any kind of grain for sheep, though it always should be done for cattle or hogs. No whole grain passes the stomach of a sheep undigested. The ewes belonging to this flock of weathers, (those of the same year's growth,) were sold when two years old, to go to Western New-York, where I have no doubt they will contribute to the improvement in fine wool.

Now I am upon the subject of farm profits I will further say, that my flock of sheep numbered, one year ago, 520, and by reference to my account of sales, I find the amount in wool and sheep, to be $1,760.00 from the flock during the year; but I have reduced the number 200, and added some extra feed; yet the profit is remunerative and satisfactory.

I do not, Mr. Editor, make these statements in a spirit of egotism or boasting, but I have noticed in some of the late numbers of the Cultivator, complaints by some of your correspondents, about the meagre profits of farming, and expressing doubts whether it can be made profitable. It is to be regretted that such erroneous views, however honestly entertained, should obtain currency. This is one reason why so many of our young men are averse to the calling. True it is, we cannot become millionaires or hundred thousanders, by farming; nor is there much danger of becoming bankrupts. I speak from experience, and I do say, that on all good soils and favorable localities for market, by industry, perseverance, and economy, skill and good judgment, farming is remunerative and profitable, and if steadily pursued for a term years, will result in competency and independence. J. W. Colburne. *Springfield, Vt., April.*

Training Colts.

I have a good two-year old colt, that I wish to break, and not being used to breaking and training colts, I should be well pleased, if you would inform me the best way. Any information that you may give, will be thankfully received. H. D. Clark. *Florida, N. Y.*

We commend to the attention of our correspondent, the following judicious directions, which we copy from the Valley Farmer. The same course must be pursued for a colt two years old as for one younger, only the task will be more difficult. This course is strictly *training*, not *breaking*.

There is no greater mistake than to postpone breaking. It should, in fact, be commenced at the very period of weaning; it should, in this manner, be commenced and prosecuted gradually, with gentleness and kindness. Let the young animal be daily handled, caressed, and led about, and let him occasionally be rubbed down, and even at times tied up for an hour or so. The man who feeds the colt, should have the entire management of him at this time, and he should be a respectable person, characterised by equanimity of temper and a kindly disposition. Half the battle in horse training consists in this early management; many a horse is spoiled and rendered permanently intractable by early harshness or improper treatment, and many a horse that might otherwise have turned out a vicious, unmanageable brute, has been moulded into a gentle, affectionate, and useful servant by the judicious treatment of those who first inducted him into the knowledge of his duty.

For the first year such treatment will suffice; after the second winter, the operation of training may commence in good earnest. The horse must be first bitted, but the bit at first used must be small, and of such form as will not hurt his mouth. The work of bitting may occupy three or four days. When the colt becomes accustomed to the bit, he may then have two long ropes attached to it, slightly fastened to his sides by a loose girth over the back, and his feeder may thus drive him as it were, round a field, pulling upon him as he proceeds. This will act as a first lesson in draught. If intended as a saddle horse, a filled bag, may be thrown across his back and secured there, and after a while, when he has become used to this, a crotch may be fastened upon his back, the inferior extremities grasping his sides, and thus inuring him to the legs of a rider.

Portions of harness may now, from time to time, be added, the winkers being kept for the last. He may now be put in a team, and it is better he should be one of three, having one before him and the shaft horse behind him. It is best to begin draught on grass, where the colt will not be frightened with the noise of the wheels. He has enough to occupy his thoughts without that, and the grand secret consists in not hurrying or confusing him. Let everything proceed gradually and by successive stages, and above all, let me entreat that no whip or harsh language may be permitted to be used.

Breeders of horses are very apt to fall into a common fault, viz: of postponing the breaking of them to a period comparatively advanced, and then fancying that the training can at once be affected. We have endeavored to show that the work of training should be a gradula and progressive one, and that it should rather consist of a consecutive system of judicious management than be converted into a separate business, suddenly undertaken and summarily performed. If the colt has been treated as we recommended, much subsequent trouble will be saved his owner; if it were generally so treated, there would be fewer instances of vice and sulkiness displayed by the adult horse.

All horses, especially such as are required for agricultural purposes, should be broken into the saddle as well as the harness. This is easily effected when once the animal has suffered himself to be yoked in the team, as already described. Let his accustomed feeder and handler be the first to mount him; there is no doubt that the colt will suffer him to do so without struggling, and gentleness alone is requisite to complete the lesson thus auspiciously begun. At the same time that mildness is absolutely necessary, it is not less essential that the colt be taught implicit obedience to the will of his master. For this purpose, however, neither the whip nor spur must be employed, nor must he be shouted or halloed at; nothing is required but firmness, steadiness, and patience—the three great requisites in a successful horse-breaker.

When the colt has acquired the art of drawing and carrying, it will be time to instruct him in, perhaps, the most difficult part of his duty—backing. This must be done cautiously at first, by the long rope, and gradually. Let first a light cart, and then a loaded one be added; let care be taken not to hurt the mouth with the bit; many a good and valuable horse has been spoiled by this bad management. Patience and gentleness will effect everything; a contrary course of treatment will generate vice. Few, it may said almost no horses, are naturally vicious. It is cruel usage which has first provoked resistance. That resistance has been followed by greater severity, and the stubbornness of the animal has increased. Open warfare has ensued, in which the man has seldom gained advantage, and the horse has been frequently rendered unserviceable. Correction must be used to enforce implicit obedience after the education has proceeded to a certain extent, but the early lessons should be inculcated with kindness alone. Young colts are sometimes very perverse. Many days will occasionally pass before they will permit the bridle to be put on, or the saddle to be worn; and one act of harshness will double or trible this time. Patience and kindness, however, will always prevail.

◆

Hoven in Cattle.

As I have seen many remedies for the cure of hoven or bloat, and have never seen what I think the best, I would say that I regard fat salt pork as the most effectual remedy that can be used; and I would state, that after making use of it for twenty years, I never knew an instance, even in the most severe cases, where it failed to give immediate relief. The first trial that I made, was on an ox, that had eaten nearly one bushel of pototoes, and fed on fresh clover. Oil and other medicines had been given, and he had been tapped, but all to no purpose. We gave him pork, and I think he was relieved in less than 15 minutes. The next was a cow, that was near calving. She broke into a field of ripe corn, and eat what she would. The owner was absent, and his wife asked me what to do. She was down, and we could not get her up. I called for pork, and gave her one pound or more, and in 10 minutes she was up, walking about. Soon after I moved into this town, a man called on me one evening, and asked me if I knew of anything that would relieve a creature that was bloated. He said he had a cow that had eaten rye bran, and was badly bloated, was down, and five men had tried a number of times, and could not get her up. I told him of pork. He afterwards told me that he had made another trial, but could not get her up. He then cut up 1 1-2 lbs. of pork and gave her, and left her for the night—went out in the morning, and found her up about the stable. I could mention many other cases, but these are sufficient. The method of cutting it, is to cut it in slices as you would to fry—let one man hold up the head and hold open the mouth, and another put it in the mouth. If it is thrown up, put it back down near the roots of the tongue, and close the mouth. Some creatures will eat it readily. EBENEZER CLAPP. *Hatfield, Mass., March* 3, 1853.

◆

Management of Sheep.

L. TUCKER, ESQ.—In accordance with your request, I will dot down some facts in relation to the management of sheep, which much experience has fully established in my own mind. You may be aware that the adjoining counties of Washington and Fayette, have been the most extensively engaged in wool growing of any equal extent in the Union. The large and largest farms have been those most generally devoted to this business, from the fact that these can be more economically, and with infinitely less labor and trouble, grazed with sheep, than devoted to the cultivation of grain. A farm of one thousand acres can be more easily managed with the fleecy tribe, than one hundred acres by the usual process of grain raising. Once down to grass, it remains so for many years; and on such farms, only those fields are plowed up which cease to yield good crops of grass, and require renovation by alternation with grain crops. They then are prepared to yield the heaviest crops of grain. Our experience has fully established the fact that a farm of ordinary or low quality of soil, or one exhausted by excessive cultivation of grain, may be brought by this simple process, to the highest condition, which may the more readily appear from the fact that grass, especially clover, and a less degree timothy, supply the soil with infinitely more of the elements of fertility in their decay, than they have ever abstracted, and also that sheep carry and drop their manure on the tops of hills, which need it most. Our sheep farms range from 150 to 1000 and more acres, and although the average value may be from 35 to 45 dollars per acre, the owners believe they derive more profit from appropriating them to wool-growing, than the cultivation of grain.

1st. There is no mystery in the management of sheep. Care and attention, guided by observation and common sense, are the only essentials. He who can properly manage a farm in other stock, must make a successful wool grower. The careless shepherd, whose sheep die off with the rot and other diseases in the spring, throws all the blame on ill-luck—or the mild winter or the hard winter—on the wet spring, the early spring or the late spring—little suspecting or crediting that he alone made his own ill-luck—that he had let his stock get too poor in the fall, to enter on the winter—that one or two weeks of starvation will inevitably, even with sheep in fair condition, produce the hunger-rot, (the most formidable, but least known, disease to which our sheep are exposed, and of which the victims must die in the spring,) —that he has permitted them to be mercilessly exposed without shelter to all the snows and rains and wind and cold of a long winter. The fantastical and fancy amateur sheep raiser may fabricate a system as intricate and mysterious as the hieroghyphics of Egypt, but common sense will laugh it all to scorn.

2d. My plan, pursued for many years, has been, as soon as the grass failed, to put my sheep into small enclosures or yards—say containing about one acre—from which they should not be permitted to depart (except a very few times) until the grass is sufficiently advanced for their support, say from April 10th to May 1st. I have even kept up my wethers with advantage until ten days before clipping, when pasture was scarce. The advantages of this mode, are that the sheep take immediately to their dry feed when put up—their *relish* for dry feed is not destroyed by the insufficient *taste* of grass they can pick up during the winter—they eat their feed readily and lie down. Another benefit of this plan, even greater, is in the spring. The springing grass tempts them from their hay—they will not eat it, when permitted to wander over the fields; while the grass itself is not sufficient in quantity to sustain them, and even what they do get does them a serious injury in its tender state, by producing scours, which in the spring is nearly the synonym of death. Some may fancy this course is unnatural. I say experience is higher authority than fancy. I make another point of economy. Pasture, if you please, your clover and timothy fields during the month of April, and you may expect but little from them during the whole summer; and besides they become permanently injured—whereas if you permit them to attain their full strength until the 5th or 11th of May, you can scarce get the better of them. One month's pasturing in the spring, after the grass has started, is worse than three months later in the season. Many farmers object to the keeping of sheep, that they cannot get them through the spring until grass comes. To such I would say, select and fence an acre of ground—including a spring or watering place—sheltered by woods or a hill from the prevailing cold winds—soil not liable to become muddy, and sufficiently inclined to carry off the water—completing the whole with a shed or shelter as cheap and rough as you please—but in any event a shelter to protect your sheep and hay while being fed. In reference to ewes with lamb, this plan must be somewhat modified.

3d. As to washing sheep, there is unnecessary expense and trouble. Many years since my Scotch shepherd thought to experiment on our fine wooled sheep with his national custom. Imprimis, the eke or grease of wool is absolutely a soap, composed of an alkali and oil, and is perfectly *soluble* in water. A pen is built on the edge of a creek, from which a platform three or feet above the water, extends one foot over the edge of the water. A pool five feet deep, with a gentle current, should be selected, three or four sheep being thrown over and made to swim to the opposite bank. The others will follow of their own accord, (and a very handsome sight it is) mostly one at a time. After being permitted to stand 15 or 20 minutes, they are again forced in from a like platform at another suitable place on the opposite side, and have from six to seven plunges according to circumstances. The great secret is, give the grease time to dissolve, and while waiting, remove the foul taglocks with a pair of shears. It is of importance to have a nice gravelly or sandy beach, up which the water-laden sheep may ascend with ease. Two men and a dog, have, in this way, often washed six and seven hundred in a day. Sheep are less exhausted than by the old method, and the wool is perfectly clean, if properly done.

4th. Each class of sheep should, if possible, be kept separate, and all not doing well, should be put among the hospital flock, and receive particular care.

5th. All sheep in any way defective, or unprofitable as to wool, should be selected and marked at shearing time.

6th. There is no necessity for changing sheep. Select good and healthy bucks, and avoid breeding in and in, and you may keep the same stock for a century.

7th. I believe our American Saxon and Merino sheep, are the most healthy and most exempt from disease of any domesticated breed in the world—greatly more so than our coarse wooled native, and are more hardy. This may seem a hard saying, but remember that while only a few natives are usually found on a farm, the fine wooled are kept in large flocks, consequently have greatly restricted privileges. G. E. H. *Brownsville,*

Points of Excellence in Cattle,

Adopted by the New-York State Agricultural Society, for the Guidance of the Judges at their Annual Fairs.

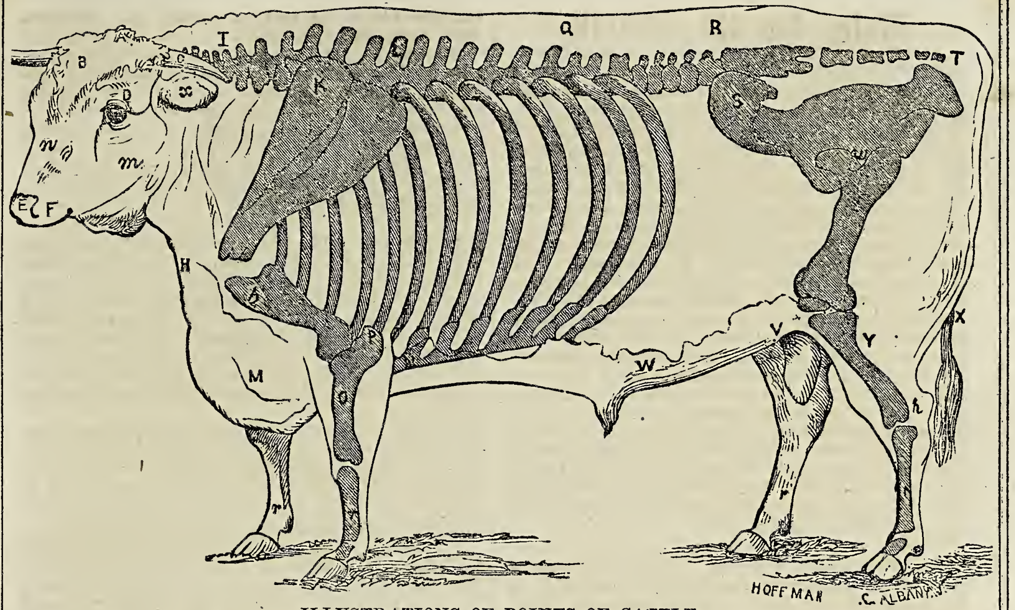
The numbers affixed to the points described form the *maximum* that is to be allowed for each; and in proportion as the animal under examination is deficient in any point, so will the Judges decrease the number, even should nothing be allowed for that point.

Points which are characteristic, and therefore common to a *breed*, though very valuable in themselves, are marked comparatively low, because they are easily obtained and demand but little skill or attention on the part of the breeder; nevertheless, an animal not possessing the characteristics of *its own breed*, must of necessity be almost worthless. On the other hand, it will be observed that points of less value, perhaps, in themselves, but which are characteristics of *deficiencies* in the breed, or at any rate difficult to sustain at their maximum excellence, are marked numerically high, as they go far to complete or perfect the natural excellence of the animal.

Again, for the above reasons, it will be found that the *same* points, in *different breeds*, have different numerical values attached to them.

POINTS OF A SHORT-HORN COW—1853.

PEDIGREE—showing unbroken descent, on both sides, from known animals, derived from English herds, as found in the English or American Herd Books, and without this, an animal cannot compete in this class.	
THE HEAD—small, lean and bony, tapering to the muzzle, ...	3
THE FACE somewhat long, the fleshy portion of the NOSE of a light delicate color, ...	2
THE EYE is of great significance, and should be prominent, bright and clear—"prominent," from an accumulation of "adeps" in the back part of its socket, which indicates a tendency to lay on fat—"bright," as an evidence of a good disposition—"clear," as a guarantee of the animal's health; whereas a dull, sluggish eye belongs to a slow feeder, and a wild, restless eye betrays an unquiet, fitful temper, ...	2
THE HORNS—light in substance and waxy in color, and symmetrically set on the head; the EAR large, thin, and with considerable action.......	1
THE NECK—rather short than long, tapering to the head; clean in the throat, and full at its base, thus covering and filling out the points of the shoulders, ...	2
THE CHEST—broad from point to point of the shoulders; deep from the anterior dorsal vertebra to the floor of the sternum, and both round and full just back of the elbows; sometimes designated by the phrase, "thick through the heart." These are unquestionably the most important points in every animal, as constitution must depend on their perfect development, and the ample room thus afforded for free action of the heart and lungs,	14
THE BRISKET, however deep or projecting, must not be confounded with *capacity* of chest; for though a very attractive and selling point, it, in reality, adds nothing to the space within, however it may increase the girth without. It is in fact nothing more nor less than muscular adipose substance, attached to the anterior portion of the sternum, or breast-bone, and thence extending itself back. This form, however, of the brisket indicates a disposition to lay on fat generally throughout the frame, and in this point of view is valuable, ...	5
THE SHOULDER, where weight, as in the short-horn, is the object, should be somewhat upright and of good width at the points, with blade-bone	



ILLUSTRATIONS OF POINTS OF CATTLE.

A. Occipital Bone—*B*. Frontal Bone—*C*. Horn—*D*. Eye—*E*. Nose—*F*. Lip—*n*. Face—*m*. Cheek—*H*. Dewlap—*M*. Brisket—*N*. Chest—*I*. Neck—*k*. Shoulder-blade—*b*. Shoulder-points—*L*. Crops—*Q*. Back—*R*. Loin—*S*. Hips, or Hucks, or Hooks—*u*. Thurl, or Whirl Bone, or Round Bone—*T*. Rump—*W*. Plates of the Belly—*V*. Flank—*X*. Cord of the Tail—*O*. Fore-arm—*Y*. Thigh—*h*. Hock—*p*. the Elbow—*r*. the Leg or Shank, Cannon Bone—*x*. Ear.

just sufficiently curved to blend its upper portion smoothly with the crops, ... 4

THE CROPS must be full and level with the shoulders and back; and is, perhaps, one of the most difficult points to breed right in the short-horn, . 8

THE BACK, LOIN and HIPS should be broad and wide, forming a straight and even line from the neck to the setting on of the tail, the hips or hucks round and well covered, ... 8

THE RUMPS laid up high, with plenty of flesh on their extremities, ... 5

THE PELVIS should be large, indicated by the width of the hips (as already mentioned) and the breadth of the twist, ... 2

THE TWIST, should be so well filled out in its "seam" as to form nearly an even and wide plain, between the thighs, ... 3

THE QUARTERS—long, straight, and well developed downwards, ... 5

THE CARCASS—round; the ribs nearly circular, and extending well back, ... 4

THE FLANKS—deep, wide, and full in proportion to condition, ... 3

THE LEG—short, straight, and standing square with the body, ... 2

THE PLATES of the belly strong, and thus preserving nearly a straight under line, ... 3

THE TAIL—flat and broad at its root, but fine in its cord, and placed *high up*, and on a level with rumps, ... 2

THE CARRIAGE of an animal gives style and beauty; the walk should be square and the step quick; the head up, ... 2

QUALITY—On this the thriftiness, the feeding properties, and the value of the animal depend; and upon the touch of this quality rests, in a good measure, the grazier's and the butcher's judgment. If the "touch" be good, some deficiency of form may be excused; but if it be hard and stiff, nothing can compensate for so unpromising a feature. In raising the skin from the body, between the thumb and finger, it should have a soft, flexible and substantial feel, and when beneath the out-spread hand, it should move easily with it, and under it, as though resting on a soft, elastic, cellular substance; which, however, becomes firmer as the animal "ripens." A thin papery skin is objectionable, more especially in a cold climate, ... 15

THE COAT should be thick, short and mossy, with longer hair in winter, fine, soft and glossy in summer, ... 2

THE UDDER—pliable and thin in its texture, reaching well forward, roomy behind, and the teats stand wide apart, and of convenient size, ... 3

100

POINTS OF THE SHORT-HORN BULL—1853.

As regards the male animal, I have only to remark, that the points desirable in the female are generally so in the male, but must, of course, be attended by that masculine character which is inseparable from a strong vigorous constitution. Even a certain degree of coarseness is admissible, but then it must be so exclusively of a masculine description as never to be discovered in the females of his get.

In contra distinction to the cows, the head of the bull may be shorter, the frontal-bone broader, and the occipital flat and stronger, that it may receive and sustain the horn—and this latter may be excused if a little heavy at the base, so its upward form, its quality and color be right. Neither is the looseness of the skin, attached to, and depending from the under jaw, to be deemed other than a feature of the sex, *provided* it is not extended beyond the bone, but leaves the gullet and throat clean & free from dewlap.

The upper portion of the neck should be full and *muscular*, for it is an indication of strength, power and constitution. The spine should be strong, the bones of the loin long and broad, and the whole muscular system wide and thoroughly developed over the *entire frame*.

Notes for the Month.

Points of Excellence in Cattle.—So much difficulty had been experienced in selecting Judges on Cattle at our State Fairs, and permitting each successive committee to determine upon its own rules of merit, that the State Society determined to take efficient measures to remedy, so far as possible, the evil; and a committee was appointed some months since, consisting of about twenty of the best judges of cattle in the state, to consider this subject, and to report such rules as they might deem best calculated for a uniform and correct criteria in awarding the premiums of the Society on Cattle. This committee held a final meeting at the Agricultural rooms in this city on the 5th of May. Having concluded their labors, they made their report to the Executive Committee, who at their meeting on the 6th, adopted the Rules reported by the committee, and passed a vote of thanks to Francis Rotch, Esq., chairman of the committee, by whom the very able and carefully prepared report "on the points of excellence in cattle," was drawn up. We give the "Points of a Short-Horn" in this number, and shall publish the rules in relation to other breeds hereafter. These "Points" will be found worthy, not only of the perusal, but of the careful study of every breeder of cattle.

New-York Agricultural College.—The corporation of this Institution was organized last week, by the election of John Delafield, of Seneca co., President; Hon. John A. King, of Queens co., Chairman of the Board of Trustees; Joel W. Bacon, of Seneca co., Secretary; and N. B. Kidder, of Ontario co., Treasurer. Measures are to be taken immediately to secure the requisite funds, and it is expected that the college will go into operation in the course of the following summer.

A Sound Suggestion.—A valued correspondent in Pennsylvania, after expressing his approbation of the Country Gentleman, makes the following suggestion, which is worthy the consideration of both editors and correspondents:—"If I might venture the remark, I would say, that the strongest hold an agricultural paper can have on the body of farmers is, that it should be practical and applicable to every day farm work; and, while enlightened and progressive, should repress speculation, unsupported by reason or experience. The strong hold of ignorance is book farming, theory, &c.; but the discretion of editors may readily silence this battery."

United States Ag. College. — A correspondent writes us as follows:

Messrs. Editors—By the "New-York Times" of the 13th inst., I saw that a farmer of Hamilton county, Ohio, had subscribed $1,000 to the Clay monument project. Now, I am neither a Whig nor a Democrat, but I think it is proper for the American people to testify their admiration of such a man as Henry Clay; but the next question is, to know which is the most appropriate as well as lasting monument, that can be erected. It seems to me that it can in no way be better done than by erecting a *United States Agricultural College*, to which the name of this lamented and great man—who was also a farmer—should be given, and the young men who would receive an education in this college, would forever cherish the memory of the "Farmer of Ashland."

A monumental pile of granite or marble is certainly a fine sight, but when once erected, it benefits no one, and in the course of time it crumbles to the earth; while, if Agricultural Schools were built—instead of monuments—in which a good education could be secured at little cost to those who intend to be farmers, and whose pecuniary circumstances allow them to receive but a poor education, it would benefit the country to the extent of thousands of dollars annually, as the next generation of farmers, being better educated than the present one, would cultivate their lands properly, and thus add to the national wealth. N. *Northern New-York, 21st April*, 1853.

We like the idea, and should rejoice to know that some admirer, (and few men ever had more devoted admirers,) of Henry Clay, had undertaken to carry the project suggested above, into execution. It could be done, were a suitable and competent person to undertake it. The difficulty is to find the man who has the patriotism and the energy to carry such a project into effect. If any of our readers know such a man, we hope they will call him into action.

The Michigan Discovery.—Since our notice of the announcement of the discovery of a remedy for the potato rot, by some person in Michigan, whose friends wished to secure "an ample reward for giving it to the public," we have been *favored* with the secret, which amounts to just about as much as we supposed. As the secret has been voluntarily communicated to us, without any restraint as to the use we should make of it, we give the following extract from the letter of our correspondent:—

"I suppose, from your article, that you must have seen Mr. Roberts' pamphlet. If not, as I have received it without any pledge of secrecy, I may say to you that the "remedy" seems to consist simply in leaving the seed potatoes in the hill through the winter, covering the hills with half-rotted straw, chaff or leaves."

That potatoes may be preserved in this way, through the winter, is well known to every farmer; and that Mr. Roberts' potatoes may have escaped the rot is by no means improbable. This, however, does not prove that their freedom from rot is to be attributed to the manner in which the seed was preserved through the winter; but rather that his soil and culture were peculiarly favorable to the growth, and we presume early maturity of the plant.

During the prevalence of the rot in England, six or seven years since, this very experiment of keeping the potatoes in the ground through the winter, was repeatedly tried—that is, potatoes were planted in October, November and December, and so covered as to prevent injury from the cold, but in every instance which we remember to have seen reported, they proved as subject to disease as those planted in the spring.

Terra Culture.—The *Rural New-Yorker* must have greatly desired to find fault with this journal, or it would hardly have gone so far out of its way as to have dragged it into a controversy about who set "that ball in motion." We have not only never disputed its claim, to have given it the first kick, but expressly gave it the credit, whatever it might be, of having first "disclosed the disclosures" of "Professor" Comstock. True we have known Mr. Comstock for a dozen years or more; but we have always refused to receive his secret; for however much of a humbug it might be, it did not comport with our ideas of right, to receive a secret, however simple, under an understood pledge not to reveal it, and then to proclaim it to the public. Neither, from all we have heard from those who have listened to Mr. C., did we suppose there was any particular necessity, or that there would be any great "virtue" in denouncing him. A large majority of those who attended his "lectures," so far as we knew, appeared satisfied with what they got for their dollar; while no one pretended that he was doing the cause of agriculture an injury. We did not, therefore, deem it necessary to make a "virtue" of entering into a contest upon the subject. We were content to let him follow his own course, especially when it seemed to awaken inquiry and to increase attention to improvement in cultivation.

Had the Editor of the *Rural New-Yorker* finished the sentence so abruptly and indefinitely ended by an "&c.," he would have informed his readers that we did class the important "secret," with the most commonplace facts, some of which were thereafter disclosed. We had not the opportunity which the Rural had "to condemn the humbug," as we did not hear it "expounded," and we certainly could not denounce what we knew nothing absolutely about, however well "satisfied of its utter fallacy" from general reasons. We have never considered it any part of our legitimate business to build fences for the sake of getting "on one side or the other," and no "proclivity to dollars and cents" has ever set us "astride" of a fence of others' making.

"FASHION."—We learn that Col. L. G. MORRIS, in company with Mr. F. MORRIS, of Westchester, purchased this celebrated racer, at the late sale of Mr. GIBBONS' blood horses, for $1,550, with a foal at her foot, by "Mariner." As "Fashion" is now 16 years old, it is the intention of Col. Morris to keep her as a breeder, and we understand he proposes to send her to the stable of Maj. Burnett, the owner of the celebrated pure blood horse "Consternation."

PLOWING AND MANURING.—Our correspondent, "MOOERS," is partly right and partly wrong. It is a waste of manure to cover it eight inches deep; but to plow the land eight inches deep, and then thoroughly incoporate the manure with this eight inches of soil, is quite a different thing. As a general rule, the finer the soil is pulverized, and the more thoroughly the manure is intermixed with it, the better will be the crop. If the land is in good tilth, the roots of plants will be sure to find the manure.

THE MISCELLANY AND REVIEW, is the title of an excellent monthly journal, commenced with the present year, at Memphis, Tenn., by RISK & EBBERT, at $2 a year. The Editor (Mr. Ebbert) objects to the "usual method of crediting selections, as both uncertain and embarrassing;" but why uncertain and embarrassing, he does not explain. Instead of the old way of attaching the name of the Journal to the article copied, he attaches it to the reference to it in the Index on the cover. Now we think the manner he has adopted, decidedly "uncertain and embarrassing." When the cover or index is lost, as is frequently the case, the reader is left to the "uncertain" supposition, that the article copied is from the pen of the editor, who must frequently be "embarrassed" by thus being compelled to father the bantlings begotten by others. The article on the 186th page of the April number, should have been credited to the *Country Gentleman.*

AG. ADDRESSES.—Hon. JAMES A. PEARCE, U. S. Senator from Maryland, is to deliver the annual Address at the Ohio State Fair, and HORACE GREELY, Editor of the New-York Tribune, at the Indiana State Fair.

COMSTOCK'S TERRA-CULTURE.—I have read your reply to Mr. TALBOTT, in the April Cultivator, in regard to COMSTOCK'S system of Terra-culture, and wish to say a few words in reply.

I heard Mr. Comstock last March, at the expense of three days time, and some $12 in money, and must say that I cannot see in what respect he is a humbug. Our company was composed of ten practical men, and so far as I could learn, all were satisfied that his theory is new easily applied, and of great value. He took us on to a field of wheat, and gave us the most convincing proofs of the truth of his statements in regard to this plant.

In trees, there can be no doubt but his ideas are very valuable; and not only so, but I must think perfectly consistent.

I send you the certificates of Professor Norton and Mr. Johnson, which I am sure are new to you, or you would have spoken differently.

I have no apology to make for his course, which prevents 999 in 1000 hearing him. Some arrangement ought to be made so that all might learn who choose. There are very many persons in our State, who now wish to hear him. What I wish to say is, that a man in your position, is not justified in condemning such a thing without hearing for himself. The agricultural community place great confidence in your judgment, and justly, therefore, you ought to be very careful in the use of it.

Before I heard him, I was at no small pains to ascertain the opinions of those who had heard him, and I found none who did not speak favorably. Yours very respectfully, DAVID LYMAN. *Middletown, Conn., May* 6, 1853.

We cheerfully give place to the above. True, we have not heard Mr. Comstock lecture; but private conversations have led us to believe that he was not the man to reveal any "new" law of nature. Farther than this, we have been assured by competent judges, who have heard his lectures, that he did not reveal anything which was not understood by those well versed in Vegetable Physiology. That there is anything prejudicial to the interests of agriculture in the lectures, we have never supposed; but that the hints he throws out, and the facts which he calls attention to, are any "secret," or are sufficient to constitute a safe theory to guide the farmer, we have never been persuaded of.

MOWING AND REAPING MACHINES.—The Rensselaer County Agricultural Society offer a premium of $20, for the best mowing machine, and the same amount for the best reaper. The trial is to be held in July, and application must be made by competitors by June 15, to B. B. KIRTLAND, Greenbush. The cost, simplicity, durability, power, quality of work, facility of managing and adaptation to uneven surfaces, will be considered. The farmers are wide awake on the subject of reapers and mowers, and it is to be hoped that the results of the trial will be such as to inform the farmer which machine is best adapted to its purpose.

A METHOD of increasing the yield of the milch-cow, by selecting proper animals for the dairy; according to GUENON'S DISCOVERY. Improved and simplified, as classified and arranged, by JOHN NEFFLIN. Philadelphia, 1853.

We noticed briefly, some weeks since, at the request of a correspondent, the nature of Guenon's discovery, remarking at the same time that the marks of a good milker, according to this theory, were not infallible, and that the system had been carried to a degree of minuteness and assumed accuracy, hardly applicable in ordinary practice. With these exceptions in view, this mode of examining the value of cows is well worthy the attention and experiment of the proprietors of diaries.

The author of the work before us, (an octavo pamphlet of 54 pages,) is a native of Southern Germany, and having a strong taste for rural pursuits, and becoming acquainted with Guenon's method, he gave it a thorough and practical examination for several years, in his own dairy and in that of his neighbors, and consequently he became a most thorough adept in the examination of the charts found to be so remarkably mapped out on every cow's milk-bag. He has thus been enabled to simplify and present in a clearer and more comprehensive shape, the system of Guenon, and has furnished his work with a table or chart, representing in 78 figures, the various gradations of value in cows, from the deep milker of twenty quarts a day, down to the worthless animal of only two quarts.

There is a sort of quaint egotism occasionally displayed, not often found in American books, which ought not to prejudice the reader against this author. It appears that he held political offices for nearly thirty years in Germany, and to use his own words, "Elected representative for the Assembly of the States in 1831, I was appointed on the committee of agriculture, and on that for the diminution of feudal taxes and tithes. In this capacity, and as editor of the "Field and Garden Gazette," I joined the opposition, and continued with the party, until on the first of October, 1848, by a speech in the popular Assembly at Heilbronn, the text of which I had taken from the Bible, and had changed to suit the times, "Render to Cæsar the things that are Cæsar's, to the people the things that are the people's, and what remains to the king," I had attracted the favorable notice of the government, which had become re-actionary to such a degree that they contemplated appointing me for a couple years to a government situation in one of their prisons; but which, having been early apprised of their kind intentions towards me, I evaded by sudden flight."

He came to Philadelphia, where his skill was thoroughly tested by a committee of the Philadelphia Society, for the promotion of agriculture. "More than forty cows," say the committee, were examined by this gentleman in the presence of members of the committee. All the remarks of Mr. Nefflin, all the questions and answers, were taken down at the moment by a phonographic reporter; all his statements were compared with those of the owners of the cows. After a full and particular investigation, carried on in the most searching manner, and sharpened by incredulity, the committee have no hesitation in giving their adhesion, and expressing their concurrence with the views of Guenon. The precision and accuracy with which Mr. Nefflin describes the qualities of the animals, and the unhesitating manner in which he revealed all their properties, could not but impress the committee with an entire reliance on his own skill, and a perfect confidence in the views of his teacher." Several certificates are added, showing the striking accuracy with which he described the various qualities of cows, entirely unknown to him except by the examination he gave them on the spot. After examining the excellent herd of J. Wilkinson, he remarked, "that he supposed Mr. Wilkinson had been near twenty years in getting his herd to such perfection," to which the latter replied, that "he had not owned a cow in his dairy more than two years and three months, *but that he had selected them on this system.*"

Those who wish to give this system a thorough examination, will find the work of John Nefflin, the best and most clearly understood of any that has yet appeared, but they should remember that the art is not be learned in a moment, and that blunders made by superficial examiners are not to be received in proof of its fallacy.

TRAVELS IN EGYPT AND PALESTINE. BY J. THOMAS, M. D. Lippincott, Garmbo & Co., Phil.—The narrative which comprises this interesting little volume, is from the pen of a gentleman well known for his classical and oriental knowledge, and who, in an easy and graceful conversational style, has given us fresh, offhand sketches, written on the spot, conveying a vivid picture of the scenes which passed under his observation. The route taken was in some respects different from the usual track of tourists, and portions will be quite new to most American readers. We have not, for a long time, met with a similar work, where amusement and valuable information are more agreeably combined.

The book contains an engraved view of Gibraltar from the west, which we are assured is a very accurate portrait of this remarkable fortress; and the representation of the blocks of stone at the Temple of Balbec, with a man on a ladder's top at their side, conveys a clear idea of their enormous bulk. The work will be found a most agreeable companion for an occasional leisure hour. It may be had of Gray, Sprague & Co., Little & Co., and Pease & Fisk, in this city.

SALE OF HIGH BRED CATTLE.—We wish to call attention to the auction sale, advertised in our columns, by Col. SHERWOOD, which takes place at Auburn, the 8th of this month. The public can rely upon the purity of the stock, as the herd has been carefully bred from imported and superior animals.

HATCHING TRANSPORTED EGGS.—A correspondent of the Ohio Farmer, says that eggs carried forty miles by railroad, packed separately in paper, with the small end down, nearly all hatched. Would not cotton batting, wool, or curled hair, be suitable for packing, for breaking the motion and jar?

TO CLEAN WHEAT FOR SEED.—The brine in which hams have been pickled, is the best that I ever used for this purpose; it being thick, in consequence of blood and molasses, it will take out every oat, &c. D. M. W.

Agricultural Societies.

NEW-YORK STATE.—The Executive Committee meeting for May, was held on the 5th. Present—LEWIS G. MORRIS, President; William Kelly, George Geddes, R. H. Van Rensselaer, Joel W. Bacon, T. C. Peters, Vice Presidents; J. T. Blanchard, Charles Morrell, Ex. Com.; B. B. Kirtland, Treas.; E. Corning, Jr., and B. P. Johnson, Sec'ys; E. P. Prentice, John Delafield, John A. King, Col. J. M. Sherwood and Anthony Van Bergen, Ex-Presidents, were also present. Minutes of last meeting read and approved.

The President, Mr. MORRIS, from the committee appointed to locate the grounds for the Fair at Saratoga, reported, and the report was adopted; but was subsequently reconsidered on motion of Mr. KELLY, and the committee directed to make further examinations, and in their discretion select grounds for the Fair.

GRASSES.—The Secretary presented a letter from Messrs. Charlwood & Cummins, Seedsmen, Covent Garden, London, containing a list of prices of grasses ordered by the Society for trial. (Persons desirous of making trial of any of the varieties of grasses which have been selected, are informed that the seed will be received in time for fall sowing, and an early application is requested.)

A vacancy having occurred in the committee appointed at the annual meeting, on the subject of the location of the annual fairs of the Society, C. S. WAINWRIGHT, Esq., of Rhinebeck, was appointed by the President, in the place of Shephard Knapp, Esq.

FRANCIS ROTCH, Esq., of Morris, the chairman of the committee on points of excellency in cattle, presented the report of the committee, which, after consideration and discussion by Mr. Geddes, Mr. Prentice, Mr. Peters, Mr. Morris and Mr. Kelly, was on motion of Mr. KELLY, seconded by Mr. Mr. PETERS, unanimously adopted, and 2000 copies ordered to be printed in pamphlet form.

Mr. KELLY offered the following resolution, which was seconded by Mr. PRENTICE, and after a few remarks from Mr. Kelly, Mr. Prentice and others, was unanimously adopted.

Resolved, That the thanks of the Executive Committee be presented to FRANCIS ROTCH, Esq., chairman of the committee on points of excellence in cattle, for the very able and carefully prepared report which he has presented on that difficult and important subject.

The list of Judges for the annual Fair was taken up and completed, and the Secretary directed to inform the persons selected, and ascertain whether they will serve.

Adjourned to 1st Thurday in June, at 11 A. M. B. P. JOHNSON, *Cor. Sec'y.*

ARRANGEMENTS FOR THE NEW-YORK STATE FAIR.—The Central Line of railroads from Buffalo to Albany; Watertown and Rome railroad; Hudson River, Harlem, Troy and Schenectady, Troy and Saratoga, Schenectady and Saratoga, Saratoga and Whitehall, and the roads north, will bring to the Fair, as heretofore, articles and stock *for exhibition* FREE, (requiring pay for stock and articles when received on board cars, and *on return with certificate of exhibition*, the amount paid *in all cases to be refunded.*) It is expected also that the same facilities will be furnished over the roads from Boston, and several other roads in this State.

As an impression exists that stock and articles, and visitors cannot reach Saratoga expeditiously, from the Central roads at Schenectady, it is proper to state, that the road from Schenectady to Saratoga is now laid with the *heavy rail, and is in the very best condition*, and that in connection with the *Albany and Schenectady road*, it is run with as much speed and efficiency as any road in the country; and that the most positive assurances have been given that engines of the highest power and speed, and cars in abundance, both for stock and visitors, shall be furnished, and taken over the road as rapidly as over any of the other roads.

From New-York, by the Hudson River and Harlem roads, cars will run through to Saratoga, with stock and articles for exhibition, and visitors will be carried with great expedition. The Hudson River boats will also afford every facility for the transportation of articles and passengers.

From the northern parts of the State, Vermont, New Hampshire and Canada, the facilities will be such as to enable exhibitors and visitors to reach Saratoga without delay, and will afford to them facilities that have never before been enjoyed for attending the Exhibitions of the Society.

The Show Grounds will be located near the village, and will be arranged in the most convenient manner for the accommodation of exhibitors and visitors. Covering will be provided for all the stock exhibited, to protect from the weather; and every exertion will be made to have the preparations superior to any that have heretofore been made for the exhibitions of the Society.

The keepers of public houses have entered into an engagement that their prices shall be only those charged to ordinary visitors; and from the large number of houses, and the range of prices from 75 cents to $2 per day, during the Fair, there can be no doubt of persons securing accommodations, both as to price and fare, that will be satisfactory.

The Executive Committee will endeavor, in every respect to have the Exhibition such as will, in all its characteristics, sustain the well earned reputation of the Farmers, Breeders and Mechanics of the State; and they have assurances, which they cannot doubt will be realized, that they will be most cordially sustained by the citizens of the State. B. P. JOHNSON, *Cor. Sec'y.*

◆

Trial of Implements.

We noticed last week, the premiums offered by the Rensselaer County Agricultural Society, for the best Reaping Machine, and the best Mowing Machine. Those wishing to compete must become members of the Society, and enter their machines before June 15, which may be done by addressing B. B. Kirtland, Greenbush, Rens. Co., N. Y., who will furnish all desired information, and give due notice of the time of trial. The machines to which premiums are awarded, are required to be exhibited at the next fair of the Society to entitle them to the premiums. The committee appointed by the Society to conduct the trial, consists of

B. B. KIRTLAND, Chairman.
Richard J. Knowlson, I. T. Grant,
Benj. Starbuck, Martin Springer.

The scale of points by which the machines are to be judged, is as follows:

1. Cost of machine.
2. Simplicity of construction.
3. Durability.
4. Effective power; or power required for a given amount of work, including the necessary attendance.
5. Rapidity of action; or amount of work performed in a given time.
6. Quality of work, and the manner of leaving the grass or grain.
7. Facility of management, including time and room required for turning.
8. Adaptation to uneven surfaces, and to cutting at different heights.

Competition is open to the world, and as the points of merit by which the machines are to be adjudged are thus distinctly laid down, the farming public may reasonably expect to derive reliable results from this trial. When the day of trial is fixed upon, notice will be given.

◆

ARABIAN HORSES IN MAINE.—It would seem from communications in the *Maine Farmer*, that a full blooded Arabian Stallion is owned in Gorham, in that state. He is the horse that was presented by the Sultan of Muscat to Hon. David Pingree, of Salem. It further states, that Mr. Bennet, of Salem, has three stud horses of the get of "Imaum," strongly resembling their sire. M. L. Hayes, of Farmington, N. H., has also three colts of the same stock.—*Granite Farmer.*

Another Review of the Geneva Trial

OF HORSE POWERS, &c.

I hereby make my statement in relation to the Geneva Trial of Machines.

In the first place, I have a few words to say in relation to the report, and also the course of the committee. I would here state, that there was only three men that constituted the examining committee on Threshing Machines; they were J. S. Gould, J. E. Holmes and Gen. Harmon. The report of the committee was not according to the record as taken at the trial, and kept by Mr. Gould. They make a reduction of more than 30 per cent in the operation of my machine from the record as they kept it at the time; and this was the only experiment, excepting the threshing, that had any merits in it. Mr Gould told me, just as I started to leave Geneva, that in looking over his minutes, he thought that they had made a mistake, as his account gave me more power than in some other experiments, and placed my machine ahead of the others. I wrote to him afterward, and proposed to have the experiment tried over again at the State Fair at Utica, which he assented to, and I believe that the notice of the same was given to the others.

I took my machine to the Fair as agreed, and the others were brought there also When the committee came to make the trial, they took an entire different course from what they had done at Geneva, and I could not prevail upon them to try the Geneva experiment over again, to see whether they had made the blunder that they report was made, (or the one that was made by their report.) It seemed as if they now knew what course was necessary (from the Geneva trial) to take to make the experiment appear favorable to the Emery power: in this they were some disappointed, as their plan placed Badger's ahead; but this they got around by saying that Emery's was made in a superior manner, which they could not say of mine.

Their correction of the minutes as kept at Geneva, made it into an error, as was manifest to any observing person. Taking it as they reported, it would only require a movement of the platform of $1\frac{5}{8}$ of a mile per hour; the persons on the power, and others looking on, could plainly see that they were walking much faster than that.

There is another thing in relation to one of the committee, (Mr. Holmes) that was not right in appearance, and that is, he said or stated, at the State Fair, that Emery was to exhibit his machines, (the Dick anti-friction presses) at the Ohio State Fair the next week; this showed such a combination of interest, that there was some danger of having his judgment biassed in making up his report; to say the least of it, it made him liable to suspicion of partiality.

After the committee had concluded upon their roport, and one of them, Mr. Gould, had left, as I was informed, I called upon the other two. (not as a committee,) to come and see if they had been justified in making the error (by correcting one as they said) in their report of the Geneva trial. One of them declined, the other promised to re-examine, but failed to do so for some cause or other. Thus much for the committee and their report.

I will now examine the experiments made at Geneva. In the first place, I will state that the machines under review—that is mine, Emery's and Badger's—were all new, and had not been used before. Emery's had some things about it to please the eye of some lookers on, and perhaps some of the committee, such, for instance, as the turning of a bolt and nut, all of no practical use, and rarely if ever done by any threshing machine builder. Emery obtained some advantage over the rest, by having a team (belonging to one of the committee, as I was informed,) employed for the week, which enabled him to keep experimenting with his machine, and to learn when it was ready for use, and thereby smoothing up his machine to his advantage in the experiments to be made with it. He altered and repaired and experimented until Thursday afternoon, when he thrashed his 100 sheaves under the direction of the committee; this took him 17 minutes, with his concave raised three-fourths of an inch, consequently he did not thresh his grain clean from the straw, as I learned the next day, by putting some of his straw through my machine.

The next morning, I obtained a team to make my experiment in threshing. This team had never been on such a power before; when they came, I put them on to see if my power would work, not knowing anything of its operation only from appearance, as it was the first one of the kind that had ever been put in operation. To try it, I got some of the straw threshed by Emery the day before, and put it through my machine. I left my concave close to the cylinder, seeing that Emery did not thresh his clean with his up.

The committee now determined to have the grain weighed in making the experiments. They allotted to me 954 lbs on my first trial, which took me 13 45-60th minutes, and gave 200 lbs. wheat. On my second trial, I had 748 lbs, and was 9 minutes in thrashing, and had 136 lbs. wheat, (not 166 as the committee reported) This last 100 sheaves had two kinds of wheat, of nearly equal proportions; one kind was weevil eaten and rusty, and green, with verry little wheat in it—the green kind was quite small sheaves; yet I could not thrash them much more than half as fast as I could the other kind. In this last experiment my concave was raised ¼ of an inch. After the wheat on my first trial had been taken up and weighed by the committee, I found that they had left considerable on the ground. I should think 6 or 8 lbs., thereby diminishing my yield to that extent.

Emery, on his second trial, had allotted to him 810 lbs., taking 10 40-60th minutes in thrashing, and gave 169 lbs. wheat, (including what might have been gathered from his first thrashing,)—his concave about the same as on the first trial of his machine. Badger had 850 lbs. allotted to him, which took him 17 40-60th minutes, and gave 156 lbs. wheat.

In both of my experiments, I labored under the disadvantage of an imperfectly operating riddle, it having too stiff a spring for a pitman, which caused it to jar a great deal when running fast; this caused me to run my cylinder 100 revolutions per minute slower than Emery did his, when it should have run 100 faster, with the same movement of the platform. This caused the horses to perform ⅛ less labor than on Emery's, in the same time. Taking this into consideration, I thrashed my first with less power, according to the quantity thrashed, than Emery did his second, and that with his concave up; and the last 100 sheaves there was no chance for him to dispute its being thrashed quicker than his, and also better. If these experiments do not prove the superiority of my machine over Emery's and all others, then I wish the committee would inform me what would.

The experiment in which the committee altered their account, (and making an error thereby,) was in trying the several machines with six men on them, weighing 925 lbs; the machines in the same position as when thrashing. Mine gave 350 revolutions, as I noted at the time—356 as the committee noted at the time, and 256 as they reported. The 356 as noted by the committee, would give about 2,250 revolutions of the cylinder. Emery's gave upon the same trial, 240 revolutions of band wheel, and about 2,100 of cylinder. My cylinder was 15 lbs. heavier than his. These experiments again showed a decided superiority of my machine. The great difference in the gearing between my Horse Power and the others, my band wheel turning three times to either of the others twice, with the same movement of the platform, which permits me to use a much smaller band wheel and larger pulley on the cylinder, which enables me to use a much slacker band, causing less friction thereby, which is one of the causes of the superiority of my machine.

The other experiment made could form no correct data to judge of the merits of the several powers, as there was so much difference in the movement of the platform to each turn of the band wheel; in order to have made an equality in the experiment, the powers should not all have been at the same elevation as they were, but should have been so elevated as to have caused the same perpendicular descent of the weight on the several powers to each turn of the band wheel; this would have elevated mine near six degrees higher than Emery's, and about five degrees higher than Badger's; by this, it is plain that my power would have far exceeded either of the others. As it did exceed Badger's, and fell but little behind Emery's, in the experiment, with two men on it weighing 269 lbs., it gave 356 turns to my band wheel and 13 lbs. hold back; and gave 292 turns of Emery's, with 27 lbs. hold back.

At the State Fair at Utica, I had again a new machine, which I was taking to a man in that county, to whom it had been contracted to before leaving home. Badger brought one, which he said that he had run sufficient to smooth it up, and that he meant to be prepared this time. Emery had the same one (as he said) that he had at Geneva, which he had run sufficient after leaving Geneva, to make it run in its easiest manner. Soon after setting my machine, the committee came to try them; they said that they had concluded to try all of the horse powers with the same machine; they declined to try them the same as was done at Geneva, to know whether they had there made an error or not. They put five men on each horse power, weighing 714 lbs., attached to the same machine; mine gave 1,390 revolutions of cylinder, Emery's 1,996, with his 38½ inch band wheel, and 1,886 with his 42 inch band wheel, and Badger's gave 2,160, his band wheel being 36 inches. Each turn of the platform gave motion to the cylinder as follows:—mine 192, Emery's 172, Badger's 151. This shows that they both had more descent of the platform than mine, and thereby applying to each turn of the cylinder, equal to the difference in the motion of the platform, an increased amount of power. My power should have been elevated about 1½ degrees higher than that of Emery, and about 3 degrees higher than Badger's, to have given the same perpendicular descent to each turn of the cylinder; this would have been sufficient, even with my new power, to have equalled either of the others.

The platforms of Emery's and Badger's powers moved more than twice the distance in a minute, that mine did, in this last experiment, consequently descended more than twice the perpendicular height, thereby consuming more than twice the amount of power; yet they did not accomplish only about 1½ of useful service. After the committee had got through with their experiments, I went to using my machine in threshing some, and in running the portable grist mills, which use caused it to run much easier than when the committee made their experiment. I then made some more experiments. I first tried to see what weight it would take to move it. We found that two men weighing about 360 lbs., would give the cylinder about 400 motions per minute: by adding another man of 160 lbs, making 250 lbs, it gave about 1,100 revolutions of cylinder. We then added another man of 133 lbs., making 653 lbs—this gave about 1,800 revolutions. This showed a decided gain over the experiments of the committee, and exceeding the others according to the weight on the power.

As a proof of my faith in the superiority of these machines, I will let any person have one (who has a reputation for honesty, and has one of Emery's or Badger's,) of these machines upon trial—and if upon a fair trial, he does not concede it superior to either of the others, he may keep it for his trouble.

GEORGE WESTINGHOUSE.

Central Bridge, May 6, 1853.

These machines are made by G. Westinghouse & Co., at Central Bridge, Schoharie county, N. Y., to whom all orders should be addressed.

They also make a combined Thresher and Cleaner, to be used with the two-horse power; also Cleaners for the large lever powers.

These machines are warranted to give satisfaction to the purchaser upon trial, or they can be returned and the money refunded. The prices for this season, will be for

2 horse power and separator,	$220 00
2 horse power and riddle,	150 00
1 horse power and riddle,	130 00

The above prices include straps, and all things necessary to operate them. Single, the prices will be, without any driving strap, for horse power,

2 horse power,	$110 00
1 horse power,	90 00
Separator,	110 00
Thresher and riddle,	40 00

We will deliver the two horse-power and thresher and riddle, at any point on the railroads or canals in this State, for $8, or horse power and Separator for $10.

NEW-YORK AGRICULTOR,

AND FARM AND GARDEN.—PREMIUMS FOR SUBSCRIBERS—626 PRIZES, AMOUNTING TO $5,385. While we are anxious to have our friends interest themselves in extending the circulation of our periodicals, we do not desire that they should labor without compensation. We therefore have made out the following premiums to be given to those who will act as our agents.

To the person sending us the largest number of subscribers, (and not less than 500,)	$500
2d highest, (and not less than 250,)	250
3d highest, (and not less than 100,)	100
4th highest, (and not less than 75,)	75
5th highest, (and not less than 60,)	60
6th highest, (and not less than 50,)	50
5 next highest, (not less than 40,) $40 each,	200
10 next highest, (not less than 30,) $30 each,	300
15 next highest, (not less than 20,) $20 each,	300
30 next highest, (not less than 15,) $15 each,	450
60 next highest, (not less than 10,) $10 each,	600
500 next highest, (not less than 5,)	$2,500
626 Prizes, amounting to	$5,385

Subscriptions to the *Agricultor* to be at $2 a year, and to the *Farm and Garden* at $1 a year. Two subscribers to the latter to be equivalent to one of the former. Subscribers for a shorter period to be counted proportionably, and the money in all cases to accompany the subscriptions.

The names to be forwarded as fast as they are obtained, with a note stating that they are sent for competition. The lists to be closed January 1, 1854

THE UNSUCCESSFUL TO BE PAID.

To all persons who may be unsuccessful in obtaining a Premium, *We will pay a Commission of 25 per cent.*

Specimen numbers will be forwarded to all desiring them, on application, postage paid, to the undersigned.

ALLEN & CO., Publishers,
11—1t—m1t. Nos. 189 and 191 Water-st., New-York.

THE Transactions of the New-York State Agricultural Society, vols. 1 to 9, for sale at the Office of "The Cultivator," price $1 per vol.

Important to Wool Growers.

THE subscriber offers to sell Twenty-five pure SPANISH MERINO EWES, and Twenty LAMBS—also Twenty-five lambs bred from Spanish Ewes and a French Buck. The above sheep were not raised from stock that have been peddled for pure bred sheep, but were selected personally, by one of the best farmers of this county, from some of the best flocks in Vermont. Any one wishing to commence a good flock of sheep, will find a rare opportunity, as they will be sold at fair prices.

For any information wanted, address the subscriber at Otisco, Onondaga Co , N. Y. N. H. NOYES.

June 1—21—w2t—m2t.

Prouty & Mears' Plow.

A LARGE assortment of these celebrated Plows can be found at the North River Agricultural Warehouse and Seed Store, 53 Courtlandt street, New York.

June 1—m1t. GEO H. BARR & CO.

Bulkley's Patent Dry-Kilns, for Grain, Flour, Meal and Lumber.

RIGHTS, to use these dryers, for sale in any town or State in the Union. These machines kiln-dry by steam heated when necessary to 600 or 700 deg., and combining cheapness, compactness, safety and speed. They are built at less expense, occupy less room, take less fuel and power, less danger of fire, and are less liable to get out of repair, as well as capable of doing more work, and in a better manner than any other dryer. May be built portable or stationary.

A portable machine now in use in this place, which is 8 ft. long, 5 ft. high, and 1½ ft. wide, is drying meal at the rate of 650 bls. per day, and cost to build, $130. Larger sizes, and stationary machines cost less in proportion.

The sap from inch lumber may be removed in from 24 to 48 hours, by using the steam at 500 deg. Cost of machine to kiln-dry 2500 ft. per day, $30 to $40, including the cars to pass the lumber in and out of the dryer. May be built of any size. On a late trial, 1200 lbs of water were removed from 1000 ft. of lumber in 13 hours. Steam seasoning at 500 deg , increases the strength of lumber two-fifths to five-ninths, and it will then take a higher polish. See description in Scientific American, July 3, 1847, and March 26, 1853.

Address H. G. BULKLEY, or Hon. H. L. ELLSWORTH, LaFayette, Indiana.—May 26—w2t—m1t*

CAUTION!

Ketchum's Patent Mowing Machine.

THE public will take notice, that in 1847, Letters Patent were granted to WILLIAM F. KETCHUM for improvements in Grain and Grass Harvesters, and re-issued on the 26th day of April, 1853, (for claims, a copy of which is given below.) That the undersigned are owners of said Patent right for the whole United States—except the State of Wisconsin, and will cause legal proceedings to be instituted against all persons who shall make, sell or use, machines in violation of said Patent. The public will further take notice, that no privilege to use these improvements has been granted to any one, except the right to use them—for the purpose of cutting grain only—in the Reaping Machines known as the New York Reaper, manufactured by Messrs. Seymour, Morgan & Co., of Brockport, N. Y.

The attention of the public is particularly called to the Machines manufactured by E. B. Forbush & Co., of Buffalo, and John Adriance, of Poughkeepsie, N. Y. These Machines are a direct and palpable infringement of our Patent, therefore any person making, selling or using said machine in any of the United States, except Wisconsin, must expect to be dealt with to the full extent of the law.

HOWARD & CO.

CLAIMS.—First. Placing the cutter bar and cutters lower than the frame of the Machine, and opposite the side of the plane of the wheel, in such a manner as to leave unobstructed space below the frame, and also between the wheel and the cutter, with their supports to allow the machine to pass freely and without clogging over the cut grass or grain, as set forth.

Second. Placing the cutters lower than the frame and axle, and in or nearly in the same vertical plane with the axle, on which the frame hangs and vibrates, and parallel or nearly so, to said axle, so that the vibrations of the frame, on uneven ground, shall not materially elevate or depress the cutters, as set forth.

Third The endless chain of cutters in combination with the guard teeth, as described.

Buffalo, May 22, 1853.—m1t

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by

Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Morgan Horse General Gifford.

THIS justly celebrated Horse will be kept the present season, at Lodi, Seneca county, New-York. He received the First Premium at the State Fair at Rochester, in September, 1851, and is regarded by experienced horsemen, as the best living specimen of this distinguished breed, is a perfect model in form, a sharp goer, with style and action unsurpassed.

Terms of insurance Twenty dollars.

CHAS. W. INGERSOLL.

Lodi, April, 1853—17—1t—c2t.

Full Blooded English Draught Horse, SAMSON 2nd,

WILL stand this season at the residence of the subscriber, [known as the Shotwell Farm] between Aurora and Lavanna, Cayuga Co., N. Y.

Samson 2d was sired by my Imported Draught Horse, "Old Samson," out of my full blooded Mare "Megg." "Megg" by same horse, out of my Imported Mare, "Margaret."

This valuable young Horse is the only one in the United States, that has more than half of the Original Samson Blood. He is a good dark bay color, with black legs; about 16 hands high; very compact, and posesses immense muscular power; is a kind and free worker; was six years old last summer, and weighs 1,555 lbs.

Terms, $8,00 to ensure a Mare with foal, payable on the first March next. Mares to be regularly returned; accidents at risk of owners. JOHN ROBINSON.

Lavanna, April 28, 1853 —17—1t—m2t*

The Original Black Hawk.

THIS celebrated horse will stand this season at the stable of the subscriber, in Bridport, Addison County, Vermont.

To the Patrons of Black Hawk.—It is proposed by the owner, that the horse shall serve fifty mares this season—and those who would like to secure the services of the horse, will please send to the agent their names, (by letter or otherwise,) as those sending first. will be first served.

Good keeping will be provided for mares from a distance—and all *accidents, escapes and thefts*, will be at the risk of the owner.

N. B—Terms for the use of said horse will be, for the *season*, $50, payable in cash or satisfactory notes on demand, with interest; and all demands for *past services* of *Black Hawk* and *Post Boy Morgan*, must be immediately paid to David Hill, who is alone authorised to settle the same.

DAVID HILL, Agent.

Bridport, Addison Co., Vt., May 1, 1853—3t.

To Flax Growers.

THE subscriber has invented and builds to order, a FLAX MACHINE, which, attended by two hands, is guaranteed to dress from three hundred to four hundred and fifty pounds of flax per day. The saving in labor and tow, by comparison, is considered equivalent to the cost of dressing flax by the best common machinery, used in this country and Europe. The new machine is made with care, to secure strength and durability, and can be run at a speed which requires more than two hands to attend it. Unrotted flax straw can be dressed by it. It can be driven by horse power or otherwise; and, being portable, can be sent any distance. For the present, the price of the machine complete, is $100. Those who wish to obtain it in season to begin operations next autumn, will do well to apply soon.

S. A. CLEMENS.

Springfield, Mass., March 9, 1853.—mtf

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,

Feb. 1—m1y. Braintree, Mass.

Valuable Farm for Sale.

THE subscriber offers for sale four hundred and fifty acres of land, being a part of his homestead, and comprising two hundred acres of as desirable land as any in Addison county—lying on the main road four miles north of Vergennes on the border of Lake Champlain, and one mile from the Railroad Station. It is under good cultivation, and furnished with commodious buildings. The remaining 250 acres is wood land; a portion of it covered with a heavy growth of hemlock and other valuable timber, and the remainder with the best quality of wood for fuel. The property will be sold together or in parcels. Postpaid inquiries promptly responded to.

ROW'D T. ROBINSON,

Aug. 1—tf. Ferrisburgh, Addison co., Vt.

LONG ISLAND AGRICULTURAL WAREHOUSE.

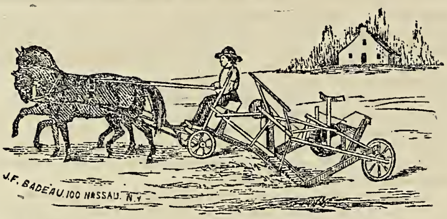
Jerome & Ellison,

(*George F. Jerome—Jacob Ellison.*)

BEG leave, respectfully to inform their friends and the public generally, that they have opened an Agricultural Store, at

NO. 297 PEARL STREET, NEW YORK,

Where will be found an assortment of the most approved Farm implements, among which are Manny's Convertible Reaper and Mower; Jerome's Belt Geared Horse Powers, with Thresher and Separator complete, Fanning Mills, Corn Shellers, Straw Cutters, Cultivators, Plows, Harrows, Iron Corn Mills, &c., also, Guano and other Fertilizers. We ask the particular attention of Farmers to


J.F. BADEAU. 100 NASSAU. N.Y.

Manny's Patent Combined Reaper and Mower,

Of which we have the exclusive right of Sale in the City of New York, and on Long Island, also an extended general right elsewhere.

This Machine was awarded a Silver Medal at the Ohio State Fair, as the best Reaper and Mower; received the highest award at the Michigan and Vermont State Fairs, as the best Reaper and Mower; and the First Premium of $50, as a Mower, and second Prize of $30 as a Reaper, at the great trial at Geneva, when it was tested in competition with eleven others, including the Worlds' Fair Reapers. (McCormick's & Hussey's,) and Ketchum's Celebrated Mowing Machine. The trial was under the direction of the New York State Agricultural Society, and occupied five days—the result shows a complete triumph of this Machine over all others and wherever exhibited, and its operation witnessed, it stand, first. More than Three Hundred of these Machines have been in operation the past season, all of which have given entire satisfaction.

It is just the machine the Farmer needs, as it will cut grass better than can be done with the scythe, leaving it spread evenly over the ground, and at the same time admits of being turned into a Reaper, with but a few minutes delay for putting in the platform for receiving the grain.

This Machine will cut from ten to fifteen acres per day. With two horses and one person to tend it when mowing, and two persons when reaping.

The grain is left at one side in gravels for binding, so that a whole field may be cut without moving any of the grain.

The cutting apparatus is perfect, and is connected by means of a joint, so as to be raised or lowered when moving along, to cut from one inch up to two feet from the ground. The cutters, or knives have a double edge so as to render it impossible to clog them.

The gearing is simple and easily accessible so as to be oiled and tightened. One great advantage it has over other machines is that the cogs of the large wheel are cast separate from and bolted to it, so that in case a cog breaks the whole wheel will not be lost, as is the case in Ketchum's and others, but new cogs can be put in without further trouble.

The whole Machine rests on Wheels so that there is no drag to it, and all side draft against the team is avoided. The machine is every way simple, convenient and durable and is the only successful combination of Reaper and Mower.

As a Mower it is as simple and perfect as though constructed expressly for mowing, and as a Reaper it is in every way simple and perfect as though constructed exclusively for Reaping. These machines whenever exhibited have received the highest encomiums from all those who own them, or have witnessed their operation. Testimony to their superiority over all other machines, and over the use of the scythe and cradle is given by thousands of practical farmers. These machines are *warranted* to cut grass and grain better than it can be done with a scythe, and cradle, and salt and sedge grass better than it can be done with a scythe, and to work to the satisfaction of the purchaser, or may be returned and the money will be refunded.

All farmers wishing to purchase machines for the coming season, will greatly oblige by sending in their orders as early as possible that the machines may be ordered, and a sufficient number manufactured to satisty the demand. Our rule will be to fill orders as they are received, that is those who first order will receive their machines first.

☞ Price of the Mower and Reaper $125, and expenses of transportation from the Manufactory.

WHEELER, MELICK & Co., Albany, are agents for the above machines.

New-York, April 15, 1853—16—1t—m1t.

United States Agricultural Warehouseand Seedstore.

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine —also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, arm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers. Jan 1, 1853—m&wtf

---

India-Rubber Gloves for Gardening,

HOUSE-CLEANING, driving, or any out-of-door work that soils the hands. They are made all lengths, to protect the rists and arms from exposure, and by wearing, make the hands soft and white. LADIES' BLEACHING MITTS may be worn while sewing or sleeping. LADIES' DRESS PROTECTORS, to prevent the soiling of dresses by perspiration under the arms.

For sale by Bowen & McNamee, New-York; Norcross & Towne, Boston; Wilcox, Billings & Co., Philadelphia; Falconer & Haskill, Baltimore; H. W. Shiffer, Charleston; Gill & Brother, St. Louis; Bart & Hickcox, Cincinnati; and by all Rubber dealers in the Union.

Sold at retail by country merchants generally.

April 12—m3t.*

Agricultural Implements.

STRAW AND STALK CUTTERS—of all patterns.

CORN MILLS—both of Iron and Burr Stone.

CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.

ROAD SCRAPERS—of several patterns.

FANNING MILLS—of all the best makers.

SAUSAGE STUFFERS AND CUTTERS—of all patterns.

VEGETABLE OR ROOT CUTTERS—of approved kinds.

CORN SHELLERS—for hand and horse power.

VEGETABLE BOILERS—of Mott's and Bent's patterns.

GARDEN AND WHEEL BARROWS—of iron and wood.

HAY AND COTTON PRESSES—Bullock's patent

BRICK MACHINES—of Hall's and other makers.

WAGONS AND CARTS.

PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam PLOWS—Eagle, Massachusetts make, and Minor & Hortons.

For sale at the State Agricultural Warehouse, No. 25 Cliff Street, New-York. Nov. 1—tf.

Super-phosphate of Lime.

IN bags and barrels, made by C. B. DeBurgh, a warranted pure and genuine article, for sale by

GEO. DAVENPORT,
No. 5 Commercial, corner of Chatham-st., Boston,
Agent for the manufacturer, with directions for use.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.

April 7—14—1t—mtf.

Farm Dogs.

FOUR fine dog pups, from a Bull-Terrier slut, for sale. Address by mail, A. B., Woodbridge, N. J.

May 12. 1853—19—1t—m1t*

Sale of Short Horned Cattle.

I WILL sell by Auction, at my residence, on Wednesday, 8th June next, at 1 o'clock P. M., about Thirty thorough bred Short horned Cattle. About twenty of them are Cows and Heifers, the remainder young Bulls. Nearly every animal is the produce of the Imported Bull "Yorkshireman" and 3d "Duke of Cambridge," bred by the late Thomas Bates' Esq., of Kirkleavington, England, and "Earl of Seaham" and 'Vane Tempest,'' bred by John Stephenson, Esq., of Durham, England, and are of his famous Princes family.

The upset prices of these animals will be from $150 to $300, as to age, &c., &c.

I will also offer the above named Imported Bull, "Vane Tempest,''—his upset price is $1000.

TERMS—Cash, or satisfactory notes at three months, payable at the Bank of Auburn, with interest.

I will also have for sale at that time a few South Down Rams and Suffolk Pigs.

Catalogues will be ready about 15th March next, and will be found with

A. B. Allen, Esq., 89 Water street, New York.
Sanford Howard, Esq., Cultivator office, Boston.
Luther Tucker, Esq., and B. P. Johnson, Esq., Albany.
L. F. Allen. Esq., Black Rock.
M. B Bateman, Esq, Columbus. Ohio.
W. T. Dennis, Esq., Richmond, Indiana, and with the subscriber. J. M. SHERWOOD.

Auburn, N. Y., Feb. 24—9—e.o.m—m.

Farm Implements for California.

BURRALL'S PRIZE REAPERS, MOWERS. *Threshers, Separators, Clod Crushers, Field Rollers, Cultivators, Horse Powers; &c., &c.*—all warranted of the best material and workmanship. Strong, compact, and reliable, expressly for that market.

Made and sold cheap for cash, by THOMAS D. BURRALL, Geneva, Ontario Co, New-York.

Feb. 10, 1853—7—13t.—m3t.

Forbush's Patent Reaper and Mower.

THIS machine is equally as well adapted for Mowing as Reaping. It combines more advantages and convenience than any other machine now in market. Price for Mower, $110; for Mower and Reaper combined, $125. A description will be sent, with full particulars, by addressing the Patentee's Agents, LONGETT & GRIFFING,
No 25 Cliff-street, New-York.

April 28, 1853.—17—5t—m1t.

Albany Tile Works,

Corner Patroon and Knox Streets, Albany, N. Y.

DRAIN TILE of the following descriptions and prices, suitable for land drainage, always on hand, in large or small quantities, of the first quality, delivered at the Docks and Railroad Depots free of cartage.

Horse Shoe Tile.

$4\frac{1}{2}$ inch calibre, $18 per 1000 feet.
$3\frac{1}{2}$ " " $15 "
$2\frac{1}{2}$ " " $12 "

Sole Tile or Pipe.

3 inches calibre, $18 per 1000 feet.
2 " " $12 "

Horse Shoe Hand Tile, 8 inches calibre, for drains around dwellings, at $8 per 100 feet. Sole Tile, 4 inch calibre, for sink drains, at $4 per 100 feet—9 and 6 inch square, polished face Floor Tile, less than one-fourth the cost of marble, for basement floors and cellar pavements—9 and 6 inch square Bakers' Tile, for oven bottoms. Orders from a distance will receive prompt attention. A. S. BABCOCK.

Albany, April 14, 1853—16—13t—c6m.

Manures.

PERUVIAN GUANO, $2\frac{1}{4}$ to $2\frac{1}{2}$ cents per pound.
BONE DUST, when taken in equal quantities, $2.25 per barrel.
BONE SAWINGS, separately, $2.50 per barrel.
PLASTER, $1 to $1 25 per barrel.
POTASH, $3\frac{1}{4}$ to 4 cents per pound.
CHARCOAL. $1 per barrel.
SULPHURIC ACID. $2\frac{1}{4}$ to $2\frac{1}{2}$ cents per pound.
SUPERPHOSPHATE OF LIME. $2\frac{1}{4}$ cents per pound.
WOOD'S RENOVATING SALTS, one cent per pound.

For sale at the State Agricultural Warehouse, No. 25 Cliff-street, New-York. LONGETT & GRIFFING.

Feb. 1—ctf.

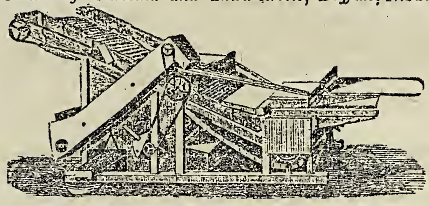
Grey Chittagong Fowls.

PURE blooded Chittagong Fowls and Eggs for sale, by
W. BARNES, Bristol, Conn.

April 6—m3t*

Agricultural Implement Manufactory,

Corner of Carolina and Third-streets, Buffalo, N. Y.



PITTS' PATENT SEPARATOR——IMPROVED DOUBLE PINION HORSE POWER—PITTS' CORN AND COB MILL, &c.

I HEREBY give notice, that since the extension of the Patent right on my machinery for Threshing and cleaning grain, I have removed to Buffalo, N. Y., where I have permanently located, and erected a large establishment for the future manufacture of the above machines.

The Separator has been enlarged, improved, and rendered more permanent and durable in all its parts—while the Horse Power, for strength, ease, durability, and cheapness of repair, is not surpassed by any in the United States. This Power is warranted to stand the full strength of eight horses, also to give as much effective or useful power when driven by one or two horses, as any other Horse Power, whether constructed on the endless chain or lever principle.

It was put on trial at the great exhibition of Horse Powers and Threshing Machines, at Geneva, in July last, 1852, where it received the New-York State Agricultural Society's first premium "*for the best Horse Power for general purposes.*"

The Separator, at the same trial, also received the Society's first premium. My machines will thresh and clean from three to five hundred bushels of wheat per day, and other grain in proportion.

Two hundred of the above machines are for sale at the Agricultural Works of the subscriber, in this city, all warranted to be a better article than can be purchased at any other shop, and if they do not prove on trial to be so, I will take them off the hands of the purchasers, at the price they may pay me for them.

I further notify all persons, who are purchasing Horse Powers and Separators to be used in California or Oregon, that I will hold them accountable for any infringement of the rights secured to me by letters patent in the above machines, as I am manufacturing a Horse Power and Separator expressly designed for that section.

All orders for the above machines, hereafter, addressed to the subscriber, will receive prompt attention.
JOHN A. PITTS, Buffalo, N. Y.

April 14—16—1am—c6m

Imported Horse Consternation.

THIS thorough bred horse has been exhibited repeatedly at the Fairs of the New-York State Agricultural Society, and by the unanimous voice of every committee that has viewed him, has been pronounced the best thorough bred horse that ever passed under their inspection. His pedigree will be found complete in Derby & Miller's edition of Youatt, and can be confirmed in every particular by reference to breeder's certificates, the English racing calendar, and English Stud Book now in possession of his owner.

His stock has been proved in Oneida county, where some of his colts are four and five years old—and any person may be satisfied of their great superiority by inquiring of almost any farmer, or horseman in Rome, Lee, or Western.

He will stand the coming season, as heretofore, at the farm of the subscriber, two miles west of Syracuse, and adjoining the village of Geddes.

TERMS—Ten dollars the season, and fifteen dollars to insure. The money to be paid in advance in all cases. When a mare is insured and left at the farm, or regularly returned to the horse until the groom is satisfied that she is in foal, a receipt will be given, promising to refund the money in case the mare was not in foal.

Pasturage furnished at three shillings per week. All mares at the risk of the owner in all respects. J. B. BURNET.

Syracuse, May 1, 1853—m3t.

Fowls for Sale.

THE subscriber, having been engaged for several years in procuring from the most reliable sources, the best imported breeds of fowls, has now on hand choice specimens of the White, Red, and Buff Shanghais, Brahmapootra, Royal Cochin, Black Spanish, Dorking and several varieties of the Pheasant Breeds of Fowls. V. S. SMITH,

April 7, 1853—14—1t—m2t. Buffalo

New-York Agricultural Warehouse.

PERUVIAN GUANO—Just received per ship *Grecian*, first quality Peruvian Guano.

No. 1 Super-phosphate of Lime constantly on hand; also, Agricultural and Horticultural Implements, and Field and Garden Seeds—the largest and most complete assortment to be found in the United States.

R. L. ALLEN,
Nos. 189 & 191 Water-st., New-York.
May 19—w—20, 23, 26, 27—m2t.

Harvest Implements.

MOWING AND REAPING Machines of different patterns, and of the best kinds in market.

Scythes, Snaths, Cradles, and large Hand Rakes, made expressly for raking after the cart; also Horse Hay Rakes.

Pitchforks, very superior, of elastic steel.

Threshing Machines and Fan Mills, combined or single.

Horse Powers of the most approved kinds, such as the Endless-chain or Railway, Circular, Cast Iron, &c.

Ruta Baga, Turnep, Cabbage, and all other sorts of Field and Garden Seeds.

R. L. ALLEN,
189 & 191 Water-st., New-York.
May 19—w—20, 23, 26; 29—m2t

Water Cure.

WE have just received the annual report of the New-Graefenberg Water Cure Establishment, for last year, of all the cases heretofore treated at that Institution, together with a detailed statement of many cases, written by the patients themselves. under their own names. Some of these are of a most remarkable character, and come from sources of the highest respectability. A candid examination of this report cannot fail to convince all of the superior efficacy of this mode of treatment, and the remakable success of this Institution, which is one of the oldest. as it is one of the best in the country. To any making application by mail, post-paid, a copy will be sent gratis. Address R. Holland, M. D., New-Graefenberg, N. Y.—Water Cure Journal. June 1—1t*

Morgan Breeding Mare For Sale.

A GENUINE Morgan Mare, of the "Sherman" branch, ten years old, rich brown color, of great beauty, speed and strength, now in foal by the "Manchester, N. H. Black Hawk," a colt of the Bridgport Black Hawk; foals in June.

Stowe, Vt, May 5, 1853. J. B. WHEELER.
20—4t.—m1t.

Land For Sale.

THE undersigned is authorized to sell, and now offers for sale a tract of land, between 4.000 and 5,000 acres, lying in the town of Stowe, Lamoille county, Vt., being the lands and titles owned by the late Hon. Azarias Williams, of Concord. The land lies 10 miles from the Vermont Central railroad, is heavily covered with Spruce, Hemlock and Hard Timber The timber never has been cut.

Also a Farm of 200 acres, with comfortable buildings, good water, 60 acres of intervale, 60 acres of pasture, the residue in wood and timber, including a good Maple orchard. With the farm, at the option of the purchaser, will be sold a good set of tools. and some choice stock.

Terms for the Land, Farm, Stock and Tools, $10,000.—Land, $6,500. Farm, $3,500.

Address JOHN B. WHEELER, Stowe, Lamoille co., Vt.
20—4t—m1t.

Manures.

FERTILIZERS of all kinds for sale by the subscribers.

IMPROVED SUPER-PHOSPHATE OF LIME, Super-phosphate of Lime—both the above made after the recipe of Prof. Mapes.

PERUVIAN GUANO, Sulphuric Acid, Bone-Dust, Potash, Sparlings, Poudrette, Plaster of Paris, &c., &c.

GEO. H. BARR & CO.,
June 1—m1t. 53 Courtland street, N. Y.

SEEDS!

THE undersigned being aware of the strong prejudice existing among Market Gardeners and others, in relation to seeds as usually sold by Agricultural Warehouses, have engaged the services of Mr. James Hogg, so long known to the public as a competent Seedsman, and have placed this department of their business under his control. They have also made arrangements with Prof. Mapes, and others engaged in seed raising, to furnish them with an assortment of the choicest seeds. Their Foreign and California arrangement will ensure. in addition to garden seeds, a fine assortment of Bulbs, Flower Seeds, &c., &c.

GEO. H. BARR & CO.,
North River Agricultural Warehouse,
June 1—m1t 53 Courtland-street, N. Y.

North River Agricultural Warehouse.

No. 53 Courtlland Street, New York.

GEORGE H. BARR & CO. invite the attention of Farmers, Planters and others, to their large and varied assortment of Agricultural Implements, Manures, Seeds, &c., &c., all of which will be furnished at the lowest prices. Their assortment includes

PLOWS—All the improved kinds by the most approved makers.

HORSE POWERS—Of all kinds and sizes, with and without Thrashers, &c.

CORN SHELLERS—All the approved kinds, and some of recent introduction.

STRAW CUTTERS—Of all sizes and kinds, for hand and horse power.

CORN AND COB CRUSHERS—Of all kinds and sizes.

FANNING MILLS, Cultivators, Harrows, Churns, of all the approved kinds, Rakes, Hoes, Forks, and a general assortment of Horticultural and Garden tools. June 1—m1t.

Durham Bull For Sale.

A THOROUGH bred Durham Bull, three years old March 1853. A fine *sure* animal, from *Dam*, Beauty 4th, by Pontiac (125 A. H. B.) *Sire*, Major (125 A. H. B.)

JOHN H. BAKER.
South Oyster Bay, L. I., May 19—w&m1t*

A Virginia Farm For Sale.

PLEASANTLY situated in Fairfax county, 13 miles from Alexandria, 16 miles from Washington, and about 1½ miles from Lee station, on the Alexandria and Orange railroad, a farm of 218 acres, about one-half intervale or bottom land, the residue a gentle swell of upland. It is admirably adapted to grazing, and is well watered with two small streams of never-failing water, and is capable of producing excellent crops of corn, wheat, potatoes, grass, &c. The location is healthy, and the markets as good as any in this country. On the premises is a young and thrifty orchard of 125 apple trees, 25 peach trees, pear, cherry trees, &c. Also a timber lot of 20 acres, (hard-wood,) and 59 acres second growth pine, which will yield 40 cords per acre, worth $2 per cord at the railroad, 1½ miles distant. There is a small dwelling house and other buildings on the farm The fences are tolerable, 2000 new chestnut rails having been added to the fences within two years. Price $10 per acre; one half in hand, the balance in two years. Persons desirous of examining the premises, will call upon Ansel Whedon, Agent, near Lee station. For further information, address

A. & O. WHEDON.
March 18—w2—mtf. West Pawlet, Vt.

THE CULTIVATOR:

A MONTHLY JOURNAL OF

Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 CENTS A YEAR.

This standard Agricultural Monthly commences with the new year. its Third Series. It is published in the same superior style, and will now be more valuable than ever, as the choicest Agricultural and Horticultural articles in The Country Gentleman will appear in its pages. The price hereafter will be as follows:

Single copies, Fifty Cents—Eight copies $3—any larger number at the same rate.

All subscriptions must commence with the January No., and the payments must in all cases accompany the order for the paper.

LUTHER TUCKER,
Publisher, Albany, N Y.

THE COUNTRY GENTLEMAN

IS PUBLISHED EVERY THURSDAY,

By LUTHER TUCKER, Proprietor,

At 395 Broadway, Albany, N. Y.

LUTHER TUCKER and JOHN J. THOMAS, Editors.
JOSEPH WARREN, Assistant Editor.

Terms.—To City Subscribers, whose papers are delivered by carriers, $2.50 per year.

To mail Subscribers, $2.00 a year, if paid in advance—or $2.50 if not paid in advance.

Postmasters and all friends of agricultural improvement, are respectfully invited to act as agents for The Cultivator and The Country Gentleman.

FORBES. VAN VRANKEN. N.Y.

THE CULTIVATOR.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. I. ALBANY, JULY, 1853. No. VII.

Diffusion of Agricultural Information.

THE present condition of the United States presents certainly a picture nowhere else to be found on this huge globe of a thousand million inhabitants. The country has now become one broad territory, extending from the Atlantic to the Pacific, and from the frigid to the torrid zone. On this wide, rich, and new region, an immense tide of immigration is pouring, and spreading over its surface. New national resources are thus created, new demands are made upon the necessaries and luxuries of life from the older cities, and the whole social and commercial structure is springing up and growing at such a rate as fairly to startle one from the ordinary track of thought, as every successive census exhibits the enormous growth, promises the round number of a 100,000,000 people only half a century hence.

There are several thoughts which such a view irresistibly suggests to every one, who feels any interest in the future destiny of the country and its people. A prominent one, and the object of our present remarks, is the condition of agricultural and rural improvement which shall then exist. It becomes an important subject of inquiry whether this extraordinary growth of population shall find comfortable and permanent subsistence, when every quarter section of land shall be snugly filled up. A prudent man, who finds his family rapidly increasing, very naturally feels an anxiety as to the way in which they shall all be fed; and those who take a little wider view, will look to the sources of supply which are to feed the great national family. According to the recent course of events, much of the rich patrimony which had fallen into the hands of this family was in a fair way to become squandered; the great national estate was cultivated in a very wasteful and profitless manner, diminishing the wealth of the soil, instead of carefully maintaining or increasing its value by prudent management, by saving manures, and economical rotations.

There is much in the history of the past that is fraught with instruction. It was not many years since the great majority of all the newer lands in the country that had been cultivated twenty years, were deteriorating at a fearful rate, in consequence of the bad system of management. As the soil became ruined in the older states, the population, in accordance with the ruling passion or fashion of Yankee character, migrated to newer and richer lands, which were in their turn to be sacrificed in a similar manner, and abandoned. It has been found by census returns, that while the towns and cities generally in the older states have rapidly increased, indicating the sagacity and energy of commercial men, the population of most agricultural districts has been about stationary, and in some instances has actually diminished, showing no improvement whatever in farm management.

A shrewd writer has made the estimate that of the twelve million of cultivated acres in the State of New-York, eight millions in the hands of "skinners," whose object was to get all they could from the soil, principal and interest, instead of trying to increase the interest by augmenting the principal,—three millions in the hands of farmers who managed them so as barely to hold their own, and only one million, or one-twelfth, cultivated so as to maintain a high or increasing degree of fertility. We have no doubt that the latter number is yearly becoming greater, and that the skinners are rapidly diminishing. In Western New-York, more especially, there is a positive improvement; the wheat crop has decidedly increased in its average product, to an amount, as some have estimated, of ten bushels more per acre, in some ten or fifteen years. The cause of this increase is a very interesting subject of inquiry. There is no question that it is the result of radical improvements in the practice of farming, and more particularly in a less exhausting succession of crops, in improved varieties of grain, in deeper and more thorough tillage through the assistance of improved plows; in a more careful saving of manures, as their increased price in many towns and large villages fully attests; in the more general introduction of underdraining, imperfect as it is in most cases, and in the increased use of the wheat-drill.

These improvements have been chiefly effected through the agency of agricultural periodicals. If there is a single bad farmer—one who is retrograding or stationary, who is exhausting his land, or making a scanty living by shiftless husbandry,—who regularly reads such a paper, we have not seen him. On the contrary, we do not know a single practical farmer, who is a constant and interested reader of a good farming periodical, who is not much in advance of his non-reading neighbors. More than this, we are confident there is not one in twenty, who shows unmistakable marks of thrift on his premises, who does not keep up with the agricultural intelligence of the day, directly or indirectly, derived from reading. Agricultural societies, it is true, have done their full share; but they owe their very existence, in most cases, to the constant stimulus of the press; and the useful facts which they develop would reach but very few, were they not borne on the wings of these myriad messengers all through the country. Vaulable improvements, are made in farm implements; but their progress in use would be slow indeed, but for the thousand-tongued machine which points out their advantages and successful achievments to the retired farmers in every corner of the country. A vast amount of useful information was thrown open to the public by the trial of implements at Geneva; but not one in ten, probably, of the few hundreds of persons who witnessed the trial, were non-reading farmers, for why should *these* seek for more knowledge? By means of the agricultural press, that information was not confined to the few hundreds, but was thrown abroad for a hundred thousand readers.

There are a hundred millions of bushels of wheat yearly raised in the United States, worth eighty million dollars. An improvement is, perhaps, made in cultivation, or in the variety sown, which adds one bushel in twenty, without increasing the cost. The farmer who raises a thousand bushels, and who makes the discovery, is benefited forty dollars annually—equal to the interest on a capital of some six hundred dollars. He may perhaps communicate the discovery to a few of his neighbors, but the matter will here end or make very slow progress through the community. But if an agricultural press speaks to every farmer, the forty dollar interest and the six hundred principal, immediately swell to the enormous some of four millions yearly, the interest on some sixty millions. Now, this is a single item in a great number; and although every man cannot at the present moment be reached, in consequence of the limited circulation of these papers, yet we have not the slightest doubt, that the multifarious improvements in the agriculture of our country, which have been already effected through the agency of the press, by improving all the different breeds of animals, modes of cultivation, varieties of seeds, and agricultural implements, have already amounted in the aggregate to a permanent value of many times sixty millions.

Can statesmen and patriots, then, who view with solicitude the mighty increase of the nation, as the great flood of human beings is rolling westward, and is gradually filling up the almost interminable wilds of the west,—can they render a better service than the encouragement,—the strong, constant, efficient encouragement, of the diffusion of agricultural knowledge? The benefits thus conferred are not to be measured merely by the dollars and cents which they shall add to the value of national property, by the highly improved and profitable farms of its prosperous people, instead of worn-out and exhausted estates scarcely affording food for a starving population; a higher influence,—beyond the power of figures to estimate,—is the social and moral effect, inevitably resulting from the cultivation of comfortable and attractive homes. What an eminent blessing then—worthy of the preserving efforts of every patriotic citizen—would be the substitution of the literature of rural improvement, for the present almost universal spread of newspapers, bristling with angry politics; the one promoting peace and the pleasures of country life; the other the spirit of feud and contention, and a thirst for political office—a wide difference indeed in the influences to be exerted in impressing the developing character of a great nation, rapidly approaching in number the leaves of the forest for multitude.

Value of Guano.

Several of our correspondents having lately inquired relative to the value of guano, we give an abstract of a series of accurate experiments, reported some time since in the New-England Farmer, by Dr. Keene of North Providence, R. I. They are the more valuable on account of the care used in arriving at the precise results, instead of the more common mode of vague guessing.

Exp. 1. Rye was sown broadcast in autumn, at the rate of 3 bushels per acre, for spring soiling. Early in spring, a compost consisting of one part guano mixed with three parts of dry loam, was spread on the ground at the rate of 320 lbs. per acre, costing seven dollars. The growth on this portion soon became the greenest, tallest, and thickest, and continued so. About the first of summer, a square rod of green food cut from the unmanured part, weighed 60 lbs; from the guanoed. 105 lbs. When matured, the unmanured bundles weighed 35 lbs. per rod; the guanoed, 44 lbs. The grain from the former weighed 10 lbs.; from the latter 16 lbs., being a gain of 6 lbs. per rod or 16 bushels per acre, which, at 80 cents per bushel, gives $12.80, and the increase of straw at $7 per ton, gives $1.50, or a return of $14.30 for seven dollars worth of guano.

Exp. 2. Grass—old meadow—the guano compost applied early in spring at the rate of 320 lbs. guano per acre, or $7; another portion top-dressed with compost well mixed of equal parts of cow-dung and peat, sixteen loads per acre, costing $24. The guanoed portion soon surpassed the other in tallness and thickness—and when weighed, the guanoed part yielded 62 lbs. hay, nearly dry, and the other 42 lbs.—a balance of 20 lbs per rod or about a ton and a half per acre, of partly dry hay, in favor of the guanoed portion at $7, over that treated with barn compost at $24.

Exp. 3. Grass—guanoed as before mentioned—another portion left untouched. The guanoed yielded 60 lbs. per rod, the unguanoed 32 lbs.

Exp. 4. Grass—low, reclaimed meadow, manured three years before with 30 loads barn compost per acre. A guanoed rod (320 lbs.) yielded

115 lbs. of green, dewey grass, and an adjoining unguanoed rod, 62 lbs.

Exp. 5. Corn, sown in drills, 2½ bushels per acre—one portion with barn compost dropped in the drills, six loads (value $9) per acre; the other guano compost, 320 lbs. per acre (value $7)—the latter brought the plants up first, and maintained a decided superiority. A rod of the guanoed part cut and weighed green, weighed 450 lbs.; a rod of the other 365 lbs.—gain for guano, 85 lbs. per rod.

We have elsewhere stated that a hundred pounds of guano may generally be reckoned as worth one load of good stable manure,—in the above experiments it exceeded this, after allowing for half mixture in the barn compost. The most striking superiority was in the application to grass, where the guano, no doubt, penetrated among the roots more readily than the fertilizing parts of the barn manure. Guano is often badly applied, and produces no valuable results, and spurious or worthless articles are sometimes sold under this name.

In all experiments to test the comparative value of manures, the most clear and intelligible results are obtained, by measuring them ont so as to give an *equal cost* of each, on equal portions of land—if for instance, 400 lbs. of guano cost $10, then ten loads of barn manure at one dollar per load, should be applied by way of a comparison of the results, which are thus placed in a distinct form before the experimenter. In such trials, it will be remembered that concentrated manures, such as guano, have a decided advantage in the diminished cost of spreading, which must be accurately taken into the account when comparing with more bulky fertilizers.

Agricultural Chemistry.

Messrs. Editors—I notice by your paper of yesterday, that Dr. J. S. Houghton of Philadelphia, is out against both you and me, on account of my chapter on "Practical Farming."

I did suppose until recently, that chemists could ascertain by analysis, whether soils did or did not contain the ingredients necessary for the production of the different kinds of grain; but I now think very differently. I will state one fact which influenced this change of opinion.

About three years since, a number of the best farmers in this county, were having their soils analysed, and I thought I would do the same. I selected my sample of soil from a forty acre field, from which I had taken a crop of Indian corn two years in succession, it having been highly manured with barn-yard manure, the fall previous to the first crop. Both corn crops were good—the first the largest. I thought the whole field almost too rich for wheat, after fallow, and I had no doubt the analysis would make the field stand A. No. 1. But I was surprised, when I received the analyses, to find that it was deficient in many things, and almost destitute of other necessary constituents of a fertile soil. The chemist, however, sent me a prescription, which I was to apply, and which he said "would remedy the difficulty it was laboring under."

Now I knew it was not laboring under any difficulty. I tilled the field well, sowed it to wheat, and it produced one of the best crops in all this wheat-growing district. I sold about 800 bushels of it to G. Markel & Co., of Waterloo, and Gen. Markel told many men, farmers and others, that he had not ground so good wheat in many years, and that he never saw a better quality of flour than was made from it. Neither Gen. M. nor any one else but myself, knew anything of the analysis of my soil, but he attributed the large crop and fine quality of the wheat, to the fact that the field was under-drained.

Every farmer knows, or ought to know, that barn-yard manure furnishes all the elements of nutrition that are needful for any grass or grain that is grown in the northern latitudes, and I presume in southern also. It is true that if you manure highly with barn-yard manure for a number of successive years, that the straw will grow soft and weak, and the grain shrink; but this may be remedied by the application of lime, at the rate 40 to 80 or 100 bushels per acre. This will give a more elastic straw, and a brighter and plump seed. But to apply only three to six bushels per acre, as recommended by some chemists, would be like giving a horse or an ox a gill of corn for a feed—its effect could not be perceived. The The application of a barrel of salt per acre, to lands thus highly manured for years, will produce a similar effect, rendering the grain plump, and the straw bright and elastic.

Dr. Houghton may possibly think we were hoaxed, and that the gentleman who analysed our soils was not a chemist; but I know that he stands high as a chemist, and an *agricultural* chemist too, in the eastern cities, and if I am not mistaken, he also lectures on agricultural chemistry.

If these chemists will come among the farmers of Western New-York, and show us by the practical operation of their prescriptions, that they can raise better crops than we do, I doubt not they would find plenty of employment; but until they can do this, or at least distinguish between a highly fertile and nearly barren soil, I would advise farmers to rely more upon their own judgment and observation, than upon the results of their analyses.

I have from my youth advocated "book farming;" but books and papers have now become, like chemists, too plenty. Much is inserted in them, which is absurd to a common-sense farmer. Yours truly. John Johnston. *Near Geneva, May* 18.

Treatment of Peat Swamps.

Messrs. Editors—Is a clear peat muck soil well adapted for the growth of "Osier Willow"?

Would it after draining, produce clover, timothy, and other grasses well?

In draining such a piece, say 40 acres, where a good outlet can be made, would I not be most successful by cutting the drain around the whole, (having proper descent of course to the outlet,) thereby preventing the constant feeding from springs in the surrounding upland? There are two or three places, where from holes two feet in diameter, boils up water from beneath the ground. The depth of these places has not been ascertained. A common-length rail will not reach bottom. Some say this soil is worthless without a mixture of sand. It has never been thoroughly tested, being too wet to receive a plow, except in very dry seasons. This muck is black, extending to great depth. I do not wish to expend money in its improvement, without some assurance of being repaid. Any information, therefore, which you or your experienced contributors may have on the above points, would be thankfully received through

the "Country Gentleman." A Subscriber.
New-Fairfield, Conn.

In reclaiming a peat swamp, and bringing it into profitable cultivation, the first and chief requisite is to have it well drained—or at least so as to reduce the water eighteen inches or two feet below the surface of the muck. If the water flows down from the surrounding upland, an open ditch will cut off such as runs over the surface, or an underdrain will intercept that which runs only a foot or two beneath, on the surface of a harder subsoil. But if the subsoil be gravel or loose sand, allowing the underground streams to run at all depths, and in various directions, the side-hill drain will be of but little use, and the water must be wholly drawn from the swamp itself.

After the swamp is drained, pare and burn the sods at such a time that the peat below will not take fire—spread the ashes—if practicable, put on a good dressing of compost, having at least one-half loam, and sow with red-top and clover—timothy or herds grass will do, if the other cannot be obtained. The peat ashes will answer an excellent purpose in improving the soil, but should the paring be deemed too expensive, let the whole at a dry time, be thoroughly harrowed, and then cart on two or three inches of loam, and sow the grass seed. The peat will grow good corn and broom-corn, and doubtless the Osier Willow, after a thorough draining, with no other preparation than clearing the rubbish, and subjecting it to ordinary cultivation. But as such a porous soil is peculiarly liable to frosts, an early ripening variety of corn must be planted late, so as to escape late spring and early autumn frosts.

It sometimes happens that the plowing can be done to great advantage on a soft swamp, while it yet remains frozen hard, except when a few inches of the surface is thawed in early spring.

The most thorough and perfect treatment is undoubtedly the cheapest, and some of the most valuable meadows in the country consist of reclaimed swamps, yielding three or four tons of good hay per acre. The formation of a strong turf gradually fits the soil for other crops, and ultimately good wheat crops have been obtained on such lands.

Large Root Crops.

At a late meeting of the Executive Committee of the Litchfield Co. (Con.) Agricultural Society, the following premiums were awarded for the best acre of root crops:—

Ruta Baga.	
1. To John T. Andrew, West Cornwall,.....	1,272 bu.
2. To T. S. Gold, Ag. School, Cornwall,....	1,184
Carrots.	
1. To Abraham Beecher, Bethlehem,.......	1,416
2. To Albert Wadhams, Goshen,...........	1,344
Crop of N. Hart, Jr., Cornwall,.........	936
Turneps.	
1. To John T. Andrew, West Cornwall,.....	2,102
2. To A. Beecher, Bethlehem,............	924
Crop of H. M. Hart, Cornwall,..........	688
Crop of J. M. Wadhams, Goshen,.......	660

The turnep crop of J. T. Andrew, (2,102 bushels per acre) is thought to be the largest ever reported in this country. Most of the other crops are very large. We would thank the above named gentlemen to furnish us with their mode of culture, for publication. In England, root culture is much practiced and highly approved by the best agriculturists. In this country the subject is attracting the increased attention of farmers, and it well deserves more consideration than it has heretofore received.

Culture of Indian Corn, &c.

Messrs. Editors—I have read the several articles which have appeared in the *Country Gentleman*, on the culture of Indian corn. I differ with my friend of the north, in regard to the time of plowing as well as the mode of manuring for this crop. Instead of plowing in the spring, I would plow late in the fall, and to the depth of ten to eleven inches, laying the furrows at an angle of at least forty-five degrees. This will expose a large quantity of the subsoil to the action of the frost, and may even penetrate to the bottom of the furrows, as they are not thrown over flat. I consider the action of the frost indispensible to the improvement of stiff clays, as they will thus become disintegrated, and mingle freely with the top soil, and thus improve it very much. We use altogher the left-handed plow, and to enable us to plow to the depth mentioned, the lower part of the beam and the lower part of the share ought to be at least 18½ inches apart, with a wheel that will keep it exactly at the depth desired. By adding a little width to the mold-board, and letting it extend out with a curve so as to just scrape along the edge of the furrow, it will fill the cavity between the the furrows, and make the field look like a bed in the garden, and this ought to be the object of the plowman.

As to manure, I would not turn it down, with an eight-inch furrow laid flat over it. In some lands I should think such a course quite wrong. After the plowing is done in the fall, I would haul out the manure at any time during the winter or spring, and spread it evenly over the ground; and, when the ground is in a suitable condition, thoroughly mix the manure with the top soil with a double shovel plow, a two-horse cultivator or a gang-plow. It is well known to all men of experience, that everything put on the land, such as manure, lime, guano, bone-dust, and everything else that is soluble in water, has a downward tendency, and therefore ought not to be buried eight inches deep. But some will say the corn will find it. That may be; but how much of it will the next crop of wheat, and the grass sown with it, find? I am as much opposed to hauling out manure, and leaving it exposed to the sun and rains of summer, as I am to burying it too deep in the earth. Farther, I have no objection to plowing it under four to five inches for wheat.

The only proper time for deep plowing is in the fall, or just before frost sets in. It is the only time it can be done to the depth required, which, as I have said, is about eleven inches. To turn up a heavy subsoil, at any time from March to November, would be wrong.

I differ with my friend about hilling corn, in order to throw out props. This I would prevent if I could. I would rather have it propping up about the ear than at the ground. Another thing. I think it wrong to plow among corn when it is near tasseling. It is too late. Plowing at this time tears the roots, and injures the growth of the corn. I consider plowing corn, at any time, of no use. The double shovel, or cultivator, is all sufficient. After the corn is two feet high, the roots ought not to be disturbed by plowing.

Wm. Todd.

Utica Mills, Md., May 15, 1853.

Seed for Large Crops of Oats.

Messrs. Editors—I hold that we practical and reading farmers, whenever we discover in your correspondents, what we deem to be an error, either in theory or practice, we should inquire into it, and learn the whys and wherefores of what we cannot approve until further explained, or we become better enlightened upon the subject.

In the May No. of the Cultivator now before me, in a description of crops in Caledonia county Vt., your correspondent says: "many of the farmers are in favor of heavy seeding with oats, where the land is rich and well prepared. Five and six bushels are commonly sown on an acre. Large crops are raised in this county; the average yield per acre is about sixty bushels. The best farmers get from 75 to 100 bushels."

The yield here spoken of indicates a strong soil and a high cultivation; but why this large, and with us, *uncommon* seeding? There must be some peculiarity in the soil, or in the kind of seed used, or the result would be a much less crop by such an abundant over seeding. My location is upon the alluvial bottom lands on Connecticut river, a soil not surpassed in the world for corn, oats and grass. Caledonia is also a river county, though about one degree further north. I probably prepare my lands for a crop, as well as most farmers in Vermont, and was formerly in the habit of sowing three and three and a half-bushels to the acre, but experience has taught me that *two* bushels to the acre is better than any larger quantity, especially whenever I am desirous of seeding down to grass with the oat crop, which with me is pretty generally the case; and I never fail of a good catch of the grass, and a heavy crop of oats, or what we call here a heavy yield, from 60 to 80 bushels per acre.

My experience is this. Whenever I have seeded with three bushels or over to the acre, in a soil of high tilth, the stalks grow thick and close, and not having sufficient space to expand, they do not attain strength enough to hold themselves up, but fall down upon the ground, as the heads begin to fill, smothering the young and tender grass, the straw rusting; and not unfrequently another short, green crop of oats will be found springing up through the first growth of straw, and a partial if not a general blight of the whole crop. But with a seeding of two bushels to the acre, the straw expands, becomes strong and vigorous, holds itself up until the heads mature, and are of great length, well filled, the kernel plump and heavy, and whenever the straw does fall, it is but partial, not flat, and the grass seeding is saved. I know there is much in the seasons; a wet time, heavy showers and wind, or a severe and protracted drouth, all effect this crop; but the seeding with five or six bushels to the acre on our river soil, would be sufficient of itself to destroy all hopes of getting the first bushel of *merchantable* oats in return.

It is very probable that upon the elevated lands in Caledonia county, the soil and the climate being colder than here, lying full one degree north, that a heavier seeding is required; the growth is less rapid and the crop does not mature so early; yet I cannot divest myself of the opininion that this seeding with five or six bushels to the acre, in any locality, or upon any soils in Vermont at least, is an extreme that might as well be avoided.

J. W. Colburn. *Springfield, Vermont, May* 3.

Nitrogen in Plants.

The source of nitrogen in plants, has long been a theme of discussion among scientific men, and has a most interesting connection with agriculture. The atmosphere is four-fifths nitrogen, and we know that the leaves of plants have the power of absorbing some gases from it, (carbonic acid, for example,) decomposing them, and using a part or the whole in the vegetable economy; and in this way we might suppose that nitrogen would also be assimilated.

Priestly, and others, quite early in the history of organic chemistry, advanced this as the source, and many to the present day have believed that a *part*, if not the whole, might be derived in this way.

This gas forms a part of many very energetic compounds, yet in its pure state it is decidedly negative in its properties, its affinities feeble, and it is not prone to form direct combinations. This was noticed, and hence doubts arose as to its being able to directly aid the plant in its growth. De Saussure proved that ammonia existed in the atmosphere, and suggested that as the source from which nitrogen was obtained. It was afterwards found in rain water.

Experiments soon proved that its compounds were decomposed by plants, and were valuable fertilizers. Hence the use of guano and other manures, which either contain it, or yield it by decay, has become general and extensive. Some have also supposed that the *nitrates* would yield to vegetation the nitrogen of their nitric acid.

Concerning these opinions, the chemical world has long been agitated, and agriculture has felt this agitation. Each theory has been defended by men of profound learning and great celebrity, without either being able to prove, by satisfactory experiments, his theory, until very recently the experiments of a young French chemist, M. Ville, have decided the question. I have seen no mention of it in our agricultural papers, so I will give the leading features of the experiments and their results, from a published communication of Leon Toncaud, in October last; only translating the parts of most general interest.

The apparatus consisted essentially of a large bell glass, with an attached *aspirateur*, also of large dimensions. Within the bell glass, in pots, some seeds were planted in white sand, to which had been added a quantity of the ashes derived from the same species. The pots were supplied with *distilled* water. Each day the aspirateur caused a known volume of air to enter the bell; a small quantity of carbonic acid was also supplied, sufficient for the wants of the plant. Simultaneous with the operation of this apparatus, another experiment was conducted to determine the amount of ammonia in the same quantity of air that was admitted to the plant in the bell, while it was undergoing the successive phases of its growth. In some of the experiments, small but known quantities of ammonia were introduced in solution in the water; but in all the experiments noted, at the conclusion the plants were analysed and found to contain *more* nitrogen than existed in the form of ammonia in the air, and in the water which had been added, or by the decomposition of the original seeds. This was the nature of the experiments in 1849 and '50. In 1851 the experiment was changed. All the air admitted to the plant was deprived of its ammonia, by first passing it through sulphuric acid, and afterwards through a solution of bicarbonate of soda. Under these circumstances the plants grew, and were found to contain much more nitrogen than was contained in the original seeds, which excess must have been drawn from the air. In 1852 these results were confirmed by further experiments. The plants fructified completely, and their nitrogen, when matured, was more than in the seeds planted.

"The conclusion then is, with all the certainty that belongs to an experimental science, that the nitrogen of the air is absorbed by plants and serves in their nutrition, and that the cereals are not an exception in this respect."

Although this settles the question of science, it does not show that ammoniacal manures are not valuable. Practical agriculture has too long decided that they are; hence, though a part of the nitrogen may, under certain circumstances, be derived from the air, other sources appear to be the most favorable to the luxuriant growth of our cultivated plants, and guano and other nitrogenous manures will perhaps be used with success in increasing the yield of our fields, while the soil is tilled, and man derives from it his support. Yours truly, Wm. H. Brewer. *Ovid, Seneca Co., N.Y.*

◆

Making and Saving Manure.

The great object to be obtained, in preserving horse stable manure in good condition, in my opinion, is to prevent its heating, which causes great injury and waste. The plan suggested by D. B. K., in the May No. of the Cultivator, which is to spread it over the farm-yard, as well as that of Composter in the Feb. No., which is to throw it into a yard, and to cause his hogs to mix and turn it over, is a decided improvement over that of throwing it in a pile out side the barn, to rot and waste by rains, and also evaporate by the wind and rays of the sun. Yet by neither of these plans is the washing and evaporation obviated.

All stable manure should, as far as possible, be kept under cover. Sheds for manure, contiguous to stables, can be built at small expense, into which the daily clearings of the stable should be thrown. I have a stable for sheep attached to my horse barn, 26 by 18 feet, without a floor, into which I throw my horse manure, and spread it over the stable. Thirty or thirty-five sheep use this stable at pleasure. In bad weather they are fed there in racks around the walls. The sheep keep the manure trampled down hard, so as to prevent any degree of heating. The litter from the racks keeps the stable in good condition for sheep.

I am fully satisfied that my horse manure treated in this manner, is worth double what it was when thrown in a pile out side of the barn, and left to heat, wash, evaporate and waste, until its remains were given to the earth.

In autumn I usually take up my stable floors, and deposit a layer of coal dust about six inches deep under them, which by spring becomes thoroughly saturated with urine. In this way I make two or three loads of manure every winter, equal to, if not better, than that thrown from the stables.

I apply all my stable manure to the soil in the spring, plowing or harrowing it immediately after getting it to the field. I would never draw it to the field until every thing was ready to mix it with the soil. Manure is often injured and wasted by permitting it to remain in small heaps on the field several weeks before it is used. Samuel F West. *Columbia, Ct., May* 3, 1853.

◆

Investments in Weeds.

It is some six thousand years since weeds became a serious and positive evil; yet if we should judge from the undisputed empire which they appear to have obtained on some men's domains, we should very naturally suppose that this long period had not been sufficient to reveal the fact. Elders, thistles, mulleins, johnswort, red root, chess, cockle, fox-tail, pig-weed, mustard, ox-eye, &c., consume as much of the strengh of the soil on some single farms, as would furnish grain for the family's yearly supply. We have heard of many bad investments of capital, from the South Sea scheme, a century or more ago, down to the multicaulis speculation of a later day, and railroads whose only dividends were the old iron originally used in making them. But South-Sea bubbles, multicaulis humbugs, and grass-covered railroads have not consumed a tithe of the money lost every year by the mighty legions of foul materials in the shape of weeds, which are secretly and openly devouring the strength of the soil in all quarters of this round globe, wherever cultivation has turned up the soil to the sun.

We do not propose to say anything new on the subject of an evil that existed even "before antiquity appears to have begun;" but perhaps we may make a few suggestions of some use, at the present juncture, when the weeds are approaching the height of their vigor, and to which the wetness of the season in many parts of the country has imparted unusual strength.

"How shall we destroy them?" This is an interesting question, but there is no "royal road" to their eradication; it must be accomplished by vigilance and labor. There are, however, different modes of attack—some laborious and expensive, and others comparatively expeditious and economical. It is our present object to point out some of these.

When weeds are newly introduced, and when only a few scattered plants have made their appearance, they may be easily and thoroughly rooted out by the hand or hoe. But when they have multiplied from a few to millions—when the numbers become swollen like the little rill to the mighty river, such a retail attempt would be as futile as trying to dip out the waters of Niagara with a quart cup. In such instances, we are to look for some means of making a wholesale sweep of them. These means will vary with the nature of the weed against which the war is declared.

Red-root, often called pigeon weed from the supposition that migrating pigeons have dropped the seeds in their flight, has of late years nearly ruined innumerable wheat fields. When the numbers are few, they are very readily destroyed, by pulling them up early in the season. Some careful farmers, by a few day's annual labor, have succeeded in keeping their fields nearly clear of them. But they often increase two or three hundredfold annually; so that one plant will produce, say two hundred the second year, forty thousand the third, eight millions the fourth, sixteen hundred millions the fifth, and so on in this interesting ratio. The hard and stony seed will remain inert for years in the soil, and as each subsequent plowing brings it up to the surface, will produce successive crops.

After it has once obtained large possession of a field, it is folly to think of weeding by hand. The only remedy is to discontinue the culture of wheat, and resort for several years to autumnal and spring plowing, in connection with annual crops, and hoed ones, as frequently introduced in the rotation as practicable.

The *Canada Thistle*, unlike the red-root, increases mainly by the extension of its roots, and hence the great object in effecting its destruction, is to cut off all supplies through the leaves, and reduce it by it by famine. If the growth of the foliage can be completely prevented for a few months, every portion of the roots will necessarily perish and decay. On heavy and compact soils, clear of stones and stumps, the work of destruction may be effected in the most complete manner in a single season, by turning the thistles under about once a month by deep plowing. Any other way of smothering, such as cutting every plant twice a week just below the surface, covering with a thick coat of tan, sawdust, or with slabs, will accomplish the purpose; but plowing is the cheapest and most wholesale mode. On stony or gravelly soils, it will generally be found insufficient, and must be combined with constant hoeing or other efficacious remedies, previous to which seeding with grass, sowed very thickly, so as to form a strong turf, will be of great service. Mowing just at the period of blossoming, on the supposition that the plant at that time has nearly exhausted the root, has been repeatedly recommended, but unfortunately is but a partial remedy, as there are great numbers of roots and new plants, forming at all stages of growth up to this time, and which, had the plants been cut or smothered while yet small, could have made no progress.

We need not go into detail with the modes of destroying other weeds, because all of them may be included under the same two heads, represented by the red root and Canada thistle—one, increasing by seed, the other by extension of root. Those which prevail most in pastures and meadows, are commonly best exterminated by a rotation of such crops as do not favor their increase; and on the other hand, many others are checked or smothered by a heavy seeding with grass. With some, as chess, cockle, &c., especial care must be taken to sow clean seed. Chess is remarkably insidious in the numberless ways in which its seeds get possession of the soil, besides its rapid increase under favorable circumstances, which has in some instances been five thousand fold in a single season, making five thousand plants the second season, twenty-five million the third, over a hundred thousand million the fourth, and so on, provided every facility is given to its growth. Wild mustard, like red root, increases by seed, which if buried deep, will remain dormant a long period, ready to spring into life when the soil is turned up; but being an annual, instead of a biennial like red-root, annual sown crops are not favorable to its destruction, but it is best effected by hoed crops, or by frequent plowings and harrowings.

The scythe, the hoe, the plow, and the cultivator, if kept in motion, should be looked to as the great exterminators of weeds, but there are certain crops that often prove powerful auxiliaries. Dense grass is unfriendly to nearly all weeds; buckwheat often exerts a cleansing effect on perennial rooted creepers, by its smothering influence, besides the mellowing tendency of its deep roots; but we have never seen anything equal to corn sown in thick drills, in reducing both annual and perennial weeds, as well as the tenacious grasses. Sown at the rate of three bushels per acre in furrows three feet asunder, and then covered with the harrow; dressed with the one-horse cultivator when a foot high, with no hoeing, it has left the land in autumn as clean as a newly plowed field, which without its effectual shade would have presented an unbroken crop of weeds and grass as thick as they could grow.

To Clean Chess out of Seed Wheat.

We commend the following to every wheat-grower who believes that wheat will turn to chess. The simple fact that the writer (and many others have done the same thing,) has eradicated chess from his farm, is sufficient to show the fallacy of the popular belief that "chess is only degenerated wheat." We have given great attention to this matter for more than twenty years, and we have never been able to find an instance of the conversion of wheat to chess; and the result of these investigations has convinced us that no such instance of transmutation ever did occur. We have often alluded to it, because we believe the point one of *great practical importance;* for so long as a man believes in the doctrine of transmutation, he will not take the pains necessary to extirpate chess from his grounds.

Messrs. Editors—I have thought of sending you something like the following, for the last twenty years and over, but always put it off. To clean all the chess out, take the riddles out of the fanning mill, leaving the screen in—take off the rod that shakes the riddles and screen; pour the wheat slowly into the hopper with a basket or a half-bushel; turn the mill a little quicker than for ordinary cleaning, and every grain of chess will be blown out, unless where three chess seeds stick together, which is sometimes the case with the top seeds.

If every farmer will clean his seed wheat in this way, I will warrant that wheat will never turn to chess after the land is once clear of it; but the difficulty will be to get the farmer to try it. It is too simple to be believed. I have seen some men who stand high as agriculturists, whom I could not make believe it, until I went to their barns and showed them that it could be done, and that effectually. This fact itself is worth much to wheat farmers, if they will only try it. Two men will clean from 10 to 15 bushels per hour. If the wheat is light, say weighing from 50 to 55 lbs. per bushel, considerable wheat will blow away with the chess; but with such wheat as we raise here, weighing from 60 to 64 lbs. per bushel, little if any of the wheat will be blown out. In some cases it is better to raise the hind end of the fanning mill about two inches from the floor; more wind can be given, and not blow away the wheat. Every man that tries this will find it answers, and every reader of your paper should tell his neighbor that don't read.

I have not raised a wine-glassful of chess in more than twenty years. Before that I had lots of it, and was sure wheat turned chess.

A very extensive wheat raiser has agreed to come this fall, and make a part of one of my fields grow chess without sowing it, for which I have agreed to give him the remainder of my crop. He may destroy the wheat, but chess he cannot make it. John Johnston. *Near Geneva, May 30, 1853.*

Scenery and Agriculture of Albany County.

The annexed notes of a tour through this county, have been furnished by one of the committee appointed to visit the several towns, by the recently organised County Ag. Society:

A tour through all the towns in Albany county has disclosed two prominent facts, which were unknown before to us, and which are worthy of note.

The first is, that the scenery of the county is remarkably beautiful and picturesque, and of so varied a character, that one cannot weary of it. There are the rich meadows along the banks of the Normanskill, little isolated hills jutting up in solitary beauty, and then again forming themselves into a mountain range, stretching away for miles, in bold, mural declivities, and supporting a luxuriant growth of forest trees, and a mass of verdure unrivaled in any portion of our land. But the beauty of the Helderbergs, as you wind your way near their base, is nothing compared with the view from their summit. The Catskill mountains form a splendid back-ground to the landscape in one direction, while the undulating country between, spotted here and there with groves, farm houses, and cultivated fields, made, in the light of a clear May day, a most lovely picture. The country on the east bank of the Hudson, can be seen reaching away into the blue distance, and on every side there is something to attract attention and awaken admiration.

But it is not so much our purpose to speak of the scenery, as of the agricultural aspect of the county, and here we notice the second fact of which we spoke above, that Albany county affords some of the best farming lands in the state, and that a measure of care will develop its resources to a degree quite unprecedented in its agricultural history. For some eight or ten miles from Albany, in a southerly direction, the soil is of a light, sandy nature, and with underdraining might all be made productive. The low places where the water stands and ruins the crops, could by draining, be changed into warm, strong, soil. As you approach the mountains, the soil changes to a rich loam, formed by the decomposition of the limestone, sandstone, and shale, of which the mountains are composed, and which is admirably adapted to all the purposes of agriculture. The geological structure of the mountains, and the many curiosities which are to be seen at every step, we have not time or space to glance at. But we doubt whether a more fertile soil than that which lies in the valleys, and along the slopes of the hills, as you rise towards the Helderbergs, can be found in the state. The land up to the very summits of the hills is susceptible of cultivation, and there is less waste territory than in most counties. In some sections, ledges of rock crop out or lie very near the surface, which makes the soil rather shallow, but yet of sufficient depth to afford good pasturage. Some of the finest farms we have ever seen, whether situation and general appearance, or richness and variety of soil be considered, may be found in Bethlehem, New-Scotand Coeymans, while Watervliet and Guilderland are in no respect inferior. The towns of Westerlo, Rensselaerville, Berne and Knox, furnish many excellent grazing and grass growing farms; and in most instances, the land which is called "too cold and sour" for tillage, might be made the best land by draining and cultivation. In the first named towns we were informed that farms were valued at from $60 to $85 per acre, and in some instances could easily find purchasers at higher prices. In the last named, land is held considerably lower, owing to a greater distance from market, and local causes; but very many farms, for general purposes, are fully equal to any in the county.

The finest stone for building purposes and walls, abounds in the county, and can be procured at a slight expense. Upon some farms, stone walls were the only fences to be seen, and we could not but admire the solid, substantial appearance which they present. In many cases these flat stones might be used to great advantage for drains instead of tiles.

We were gratified to learn that quite a number of farmers are beginning to underdrain their land, and in all cases the results have been such as to induce them to continue the work as fast as other farm labor will permit. In some instances, the increase of crops in the first two years has more than paid the entire expense of laying the tile, while the soil is claimed to be doubled in intrinsic value. Mr. David Calanan, of New Scotland, the enterprising vice president of the Agricultural Society for that town, is improving his excellent farm by underdraining, and we also saw here the most approved agricultural implements, which, by the way, were not in very general use in most parts of the county. Other individual instances of spirit and success might be mentioned, but in a hasty tour we did not take notes sufficiently in detail to make such narration interesting.

The appearance of thrift which pravails in the county surprised us. We saw very few neglected farms, decrepid fences and dilapidated buildings. On the contrary, the farm houses are generally neat and commodious, and frequently tasteful, the barns and outbuildings are capacious, and give indubitable evidence that the farms produce the wherewithal to fill them. Wherever a new dwelling has been erected ,it is invariably in a style superior to that which prevails in most sections of the country, and considerable taste is manifested in the disposal of trees and shrubbery around the best residences. Such improvments are pleasing indications of the competence, and also of a degree of refinement. There is something contagious about taste, and we expect to see a constant advance in this respect from year to year.

Though we were pleased to learn that a majority of the farmers in the county are becoming owners of their soil, and are money lenders instead of money borrowers, there are comparatively few farms which are cultivated with that care and skill which are necessary to the highest profit, and the greatest improvement of the soil. The lack of ambition and emulation among the farmers of the county, and the want of information on subjects of agricultural reform have been heretofore the hold-backs to progress. But evidences of increasing spirit and a true farmer's pride are not altogether lacking, and we trust that the Agricultural Society which has just been formed, will do much to awaken the attention and direct the energies of the farmers to higher modes of cultivation. We do not over-estimate the capabilities of the soil, in saying that Albany county can grow as large crops, and furnish as marked examples of superior culture as any county in the state, if the resolution to develop her resources be at once adopted and carried into effect. That such a determination exists, the annals of the agriculture of the state of New-York will shortly show.

We have thus hastily sketched our impressions of Albany county, with the hope that they may correct the somewhat prevalent notion that it is inferior in soil to its sister counties, and also encourage the farmers to greater activity in making the agriculture of the county what it should be.

Couch Grass.

This weed, known also as the quack, quitch, and twitch grass, (*Triticum repens,*) is well understood to be one of our worst weeds, on account of the extreme difficulty of its eradication, as usually treated. It often happens, when the ground is occupied with hoed crops, and the season is wet, that hoeing and cultivating instead of destroying, cuts and tears the roots into thousands of pieces, every one of which forms a new plant, and in this particular it is more troublesome even than the Canada Thistle. One of the best modes of eradication is to plow the ground during the dryest part of the season, and then rake out the roots with a spring-tooth horse rake; they are deposited in piles, and when decayed, form a good manure. A writer in a late number of the London *Mark Lane Express*, states that the couch grass draws largely on the fertility of the soil, and that therefore no good crop can ever be grown where it flourishes,—and for this same reason it constitutes, when decayed, an excellent manure; adding, "we do not know a better manure for turneps than decomposed couch, if saturated with a little tank liquor; and we have seen very fair turneps grown with decomposed couch alone. In the state first mentioned, we have tried it with success against town dung, and have no doubt, if it were collected and carefully put by, it would be a valuable auxiliary to the waste manures of the farm; but it would be the second year before it would be safe to apply a plant whose vital powers are so extensive and tenacious." No analysis has been yet made of this plant, but the subject, we are informed, is about to be thoroughly investigated by Prof. Way.

In a former volume of the Cultivator, E. MARKS, of Onondaga county, describes a very successful experiment, by which several acres occupied with a "perfect mat" of this grass was completely destroyed in a season by successive plowing—that is, on the smothering system, known to be so effectual with the Canada Thistle. In the spring, he plowed with a shallow furrow, and a few days afterwards gave the ground a thorough harrowing. As soon as the plant *began* to appear above the surface, he plowed and harrowed again. The operation was repeated several times, each successive plowing being deeper than the preceding, until a depth of ten inches was attained. Not a vestige of the weed was afterwards seen. The whole field where this experiment was performed, contained 48 acres; it was sown to wheat and yielded an average rate of 32 bushels per acre; but the heaviest portion was that where the couch grass grew, and which had been subjected to seven successive plowings.

◆

The more we satisfy the demands of conscience, the stronger they become. Love and religion are here like the sun. By mere daylight and torchlight, the air of the apartment is pure and undisturbed by a single particle; but let in a sunbeam, and how much dust and motes are hovering about.

Sheep Shearing Festival.

The statistical report of the Sheep Shearing of A. L. Bingham, of Cornwall, Vt., which is given in another page of this paper, though in itself very important, is not the whole, or the most generally attractive part of a farmer's festival. We are well aware that very many are ready to say that private enterprise and Yankee shrewdness lie at the bottom of all such gatherings, and we admit the fact; but after all, results farther reaching than individual profit, grow ultimately out of them. The public are reliably informed of the exact yield of wool from a flock of pure bred sheep, and thus have the means of knowing the real profit to be derived from them. The tendency of all accurate experiments is to promote care in the management of business, and to stimulate exertion. And no occupation is so much in need of an impulse in this direction as farming, and nothing will be so effectual in this respect as actual example. Private success always prepares the way for more extended trial, and the efforts of a single individual to promote his own interest, have very frequently resulted in the general adoption of measures calculated to benefit the entire public.

Another reason why these occasions are productive of good, is that farmers are brought together by them, and made to feel that they are a body of men having common interests and aims, common experience and trials, and also common pleasures and rewards. The lords of the soil are disposed to foster a kind of isolated spirit, and to feel that every man lives for himself, instead of claiming to be, as they might be, a body confederate, acting for the greatest good of the greatest number. It should be the maxim of every agriculturist to make farming the most profitable and honorable employment, and his farm the best one in the land. This spirit is fostered by the meeting of farmers from distant parts of the country, the exchange of views, and a comparison of success. This more remote effect is not to be lost sight of, and everything which tends to unite conflicting interests, to strengthen bonds of union and create new ones, should receive the countenance of our farmers. Those who attend such festivities from mere curiosity, often carry away an impression which will be lasting as time. We therefore fully agree with the sentiment that the Sheep Shearing Festival is founded in correct notions, and may be made useful in promoting the wool growing interests.

Hyde's Hotel, the place of holding this Festival, has no farther attraction in point of location, than that it is situated in one of the lovely valleys which abound in Vermont, where green pastures and still waters, in pleasing combination with cultivated fields, peaceful residences, and church spires, make up all the landscape. It affords the comforts of a quiet, secluded, country home, with the luxury of an excellent table, and the greater one of pure air. Mr. Hyde was born a hotel keeper, and without seeming to have any will of his own, has a peculiarly happy manner of pleasing every one in his own way.

The shearing took place in a building near the hotel, and the monotonous click of the shears was often relieved by a band of music in attendance, and also by the singing of the "Amphions,"—a quartette company who have some celebrity as vocalists. The mechanical part of the shearing was completed about two o'clock in the afternoon of Thursday, June 2, after which the audience assembled around the veranda of the hotel, upon which the speakers and the singers were seated. The veranda, and the rooms within hearing, were crowded with ladies, who received very unqualified compliments from the speakers. **Edgar A. Ormsbee**, Esq., of Rutland, Vermont, announced that a song had been written for the occasion by the celebrated Vermont poet, **John G. Saxe**, which he would *deacon* to the audience, verse by verse, in the good old fashioned way, and then the Amphions, assisted by Prof. Wood and family of Albany, would sing it. The song was admirably adapted to the occasion, full of beautiful allusions and humor, and we regret that we have failed to receive the copy of it which was promised us, and which would add as much to this description, as it did to the exercises. In the absence of it we are compelled to trust entirely to recollection, and cannot do justice to the speakers.

After the singing of the first verse, Mr. **Samuel Greely** of Boston, Mass., an elderly gentleman who has retained the freshness and vivacity of youth in the maturity of age, made some happy remarks, in which he alluded to the beautiful scenery of Vermont, the intelligence and prosperity of her inhabitants, the opulence of her native resources, and the importance of developing them. The value of mental and moral culture was made the subject of remark to the young. Everything Mr. Greeley said was listened to with marked attention, and he sat down amid hearty cheers.

Judge **Keese** of Keeseville, N. Y., next spoke of the early history of the state, and of the rapid progress which has been made in agriculture, in the facilities for transacting business, and for acquiring education, and ended with an appropriate sentiment.

A verse of the song which paid a fitting tribute to the beauty and excellence of the "Green Mountain Girls," was replied to by Mr. **Pixley** of the Amphions, in a manner which showed that he was well versed in the beauties of female character, while his humorous language freed him from the charge of being excessively sentimental.

Solon Burroughs, Esq., of Vergennes, Vt., responded to the choice compliment given to the Morgan and Black Hawk horses. Every state has a right to be vain of something, and Vermont was so of her horses. They were known in every part of the Union, and every Vermont boy and girl, youth and maiden, man and woman, knew all about their merits. The speaker introduced some capital strokes of wit in his allusion to the enthusiasm which prevails in the state with regard to the "fast horses."

T. C. Peters, Editor of the Wool Grower, made an amusing speech, in which praise and caricature were mingled. He acknowledged the excellence of Vermont horses and sheep; but he stigmatized certain individuals who hailed from the State as "sharpers." He said people out west were afraid to trust them, and advised the leaving off the use of "Cornwall finish" and the practice of honesty. Mr. Peters spoke in so good natured a spirit, that no one could take offence, and closed by giving farmers and their sons and daughters very sound advice.

"The Golden Fleece," was the theme of one of Mr. Saxe's verses, the mythology of which was aptly explained by **Edgar A. Ormsbee**, Esq., who made a practical and impressive application of the idea it symbolises. Jason was obliged to turn his attention to breaking cattle and plowing the land, before he could recover the lost treasure and win himself renown.

The two other verses of the song, were replied to by a member of the Amphions, and by Prof. Wood of Albany, but for want of the song itself, we are unable to report their remarks. The song was well sung, and received with hearty cheers by the audience. Immediately after, the following toasts were read by Solon Burroughs, Esq.

Vermont—The first daughter of the old thirteen; she will never disgrace the family.

Old Addison—Noted for her improvement of stock, may her wealth keep pace with her enterprise.

Rutland County—May her agriculture advance with her increasing advantages.

Rutland and Addison—Divided in name only, they are united in interest. May they become as famous for farms as they are distinguished for natural beauty.

The Improvers of Stock—Like inventors of machinery, at first hooted at, they are always applauded afterwards.

The Sheep Shearing Festival—Founded in correct notions, may it become an established holiday.

A. L. Bingham—Though absorbed in wool, anything but *wooley*. He cannot be counterfeited by "Cornwall Finish."

John A. Taintor, Solomon W. Jewett and *George Campbell, Importers of French Merinos*—Posterity will award them the title of benefactors of their race.

"*Our Native Hills*"—Every where to be honored, but first and foremost the "Hill" of Black Hawks.

"*Our Host*"—Like old wine, age improves his flavor and mellows his temper. His guests never want "Heidsick." (Hyde-sick.)

The Albany Cultivator and The Country Gentleman—The first, with its points worn brighter by age, stirs deeply the soil and the mind—the second, its able coadjutor, is ever welcome at our farms and firesides.

This last sentiment was briefly responded to by **Joseph Warren**, who thought the entire Agricultural Press should have received the compliment. Agricultural Journals have kept pace with the improvements of the day, and are becoming more and more important to the farmer. The stability of farming interests demands a like character in the publications which advocate and influence them.

Mr. **Bingham** then announced that the farmers interested in the rearing of sheep, would, at the State Fair, organize a "Vermont Sheep Shearing Club," for the purpose of accurately testing the relative merits of all the different breeds; and the audience, who had given patient attention for more than two hours, dispersed to see the display of horses, and to their homes, all seeming well satisfied with this pioneer farmer's festival.

Cost of Ruta Bagas.

Farmers too often become disheartened at the cost of raising roots, by counting the cost of the crop *per acre*, and not the cost *per bushel*. When the land has been previously well cleared of weeds by proper tillage, and rendered highly fertile by manuring, there is no crop that can be so cheaply raised as the ruta baga. Judge Buel estimated the average cost at five cents per bushel; and in no case of good management, and especially with a timely destruction of the weeds, need it exceed this amount. We observe a corroborating experiment detailed in the last number of the Genesee Farmer, by a Connecticut correspondent. The land—one-fourth of an acre—was an old meadow, broken up for potatoes the preceding year. It was well manured, and plowed deeply; manured again in a few weeks, and plowed one-half as deep as before. It was again plowed twice, and repeatedly harrowed. Our readers will recollect we have often and strongly urged the importance of thorough pulverization and mixing the ingredients of the soil, and the large crop here obtained proves its value. After these harrowings, furrows were drawn two feet apart, and four loads, (equal to 16 per acre,) of rich compost drilled into them. The soil was replaced with a plow. Over these furrows the seed was planted. The plants were properly thinned, well hoed, and harvested in autumn. The product was over 300 bushels, or more than 1,200 per acre; and after counting all expenses, including removal of stones, four plowings, four harrowings, cost of manure, planting by hand, hoeing, harvesting, and rent of land, the cost per bushel was but *five cents.*

Caterpillars in August.

In the Cultivator, a year or two since, was an account of the ravages of a caterpillar or worm among the trees of Cayuga county, in the months of August and September, by David Thomas. We have noticed the regular periodical appearance of what we presume to be the same species during several years past. They are of a dirty ash color, and, when full grown, about an inch long. Like the common orchard caterpillar of spring they weave a web on the limb of a tree, from which they sally forth and devour its leaves. They seem to prefer the black ash, (Fraxinus sambucifolia) to all other trees, next hickory, black walnut, and all the fruit trees in common cultivation, seem to be highly relished. They generally eat the parenchyma and leave the veins of the leaf, especially of apple and cherry trees.

In the years 1850 and '51, they were very abundant in certain localities in Western New-York. At the head of Honeoye lake, in Ontario county, is a swamp of more than an hundred acres, covered with trees which are mostly black ash. These trees were stripped of their leaves during the month of August of those years; ash trees first, and then the remaining, until all were naked. On visiting this swamp during the height of their ravages, a confused crackling noise was heard among the branches, caused by the falling caterpillars and the millions of their moving jaws among the leaves.

In 1850, a similar swamp near Ezekiel Birdseye's, in Hopewell, Ontario county, shared the same fate. After the leaves of this swamp were destroyed, they went into an adjoining cornfield and eat the leaves of more than two acres of corn, reducing the crop at least one half. Had not the ears of corn been partly formed when they entered the field, the damage would have been much greater, or rather the entire crop would have been destroyed. As it was, the ears were shivelled and fodder gone. On the same farm they crawled to a hickory tree, situated in a field about forty rods from any other tree, which they divested of its leaves.

The last season they were less abundant than in the two preceding years, and it is to be hoped that they will not at least increase. Your truly, S. B. Buckley. *West Dresden, N. Y.*

The idea of producing good crops without manure or tillage, is equalled by the man who expects to draw milk from the cow that has not first been fed, or to raise superior calves without care and good feeding.

Patent Bee Hives.

Will some of the correspondents of the Country Gentleman inform us, which, among the many patent bee-hives, is the best adapted for producing honey. T. B. *Vermont.*

We have made some observations, and conversed with different bee-raisers, all of whom, with scarcely an exception, had come to the same conclusion, substantially, as those contained in the following statement of Lewis F. Allen, copied from a former volume of the Transactions of the New-York State Ag. Society:

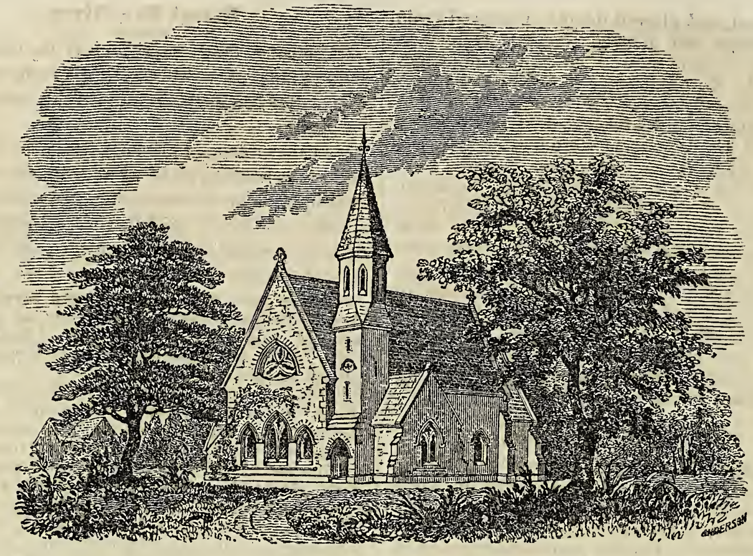
"I have seen, examined, and used several different plans of *Patent* Hives, of which there are probably 30 invented, and used, more or less. I have found *all* which I have seen unsatisfactory, not carrying out in full the benefits claimed for them.

"The bee works and lives, I believe, solely by *instinct.* I do not consider it an inventive, or *very* ingenious insect. To succeed well, its accommodations should be of the *simplest* and *securest* form. Therefore, instead of adopting the complicated plans of many of the patent hives, I have made and used a simple box, containing a cube of one foot square *inside*—made of one and a quarter inch sound pine plank, well jointed and planed on all sides, and closely put together *perfectly tight* at the joints with white lead ground in oil, and the inside of the hive at the bottom champered off to three-eighths of an inch thick, with a door for the bees in front of 4 inches long by three-eighths of an inch high. I do this that there may be a *thin* surface to come in contact with the shelf on which they rest, thus preventing a harbor for the bee moth. (I have never seen a patent hive which would exclude the bee moth, nor any one so well as this, having never been troubled with that scourge since I used this tight hive.) On the top of the hive, an inch or two from the front, is made a passage for the bees of an inch wide and six to eight inches long, to admit the bees into an upper hive for surplus honey, (which passage is covered when no vessel for that purpose is on the top.) For obtaining the honey I use a common 10 or 12 quart water-pail, inverted, with the bail turned over, in which the bees deposit their surplus. The pail will hold 25 to 30 pounds of honey. This is simple, cheap, and expeditious; the pail costing only 20 to 25 cents, is taken off in a moment, the bail re-placed, and the honey ready for transportation, or market, and *always in place.* If there is time for more honey to be made, (my bees made 2 pails full in succession this year) another pail can be put on at once.

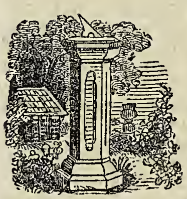
"Such, gentlemen, in short, is my method, I have kept bees about 20 years. I succeed better in this plan than with any other, it being cheap, simple, convenient and expeditious."

Manure for Roses.

Thomas Rivers, in his last Rose catalogue, says that for a neat surface dressing for Autumnal Roses, to be applied late in spring, wood ashes and guano have proved most excellent fertilizers, in the proportion of half a peck of guano to a bushel of ashes, applying two quarts of the mixture to each tree, in a circle eighteen inches in diameter round the stem, and suffering it to remain undisturbed upon the surface. The ashes retain the moisture from the dew and showers, and the effect, in giving a vigorous growth, with an abundant crop of the flowers in the autumn, has been very apparent. In our dryer climate, an occasional copious watering or a thin grass mulching, placed over this compound, would doubtless be of decided benefit, and during dry periods would in fact be indispensible.



Our Country Churches.



IN a village, the first object that attracts attention is the church, and from it the general impression of the place is formed. There is, to a good degree, a just pride felt in the village church. It is, by common consent, allowed to be the expression of ideas of taste, and the type of an affection which should be the deepest and holiest in our natures. It is a public recognition of the great truth, "there is a God," a public promise to worship Him and keep his commandments, a public testimonial of love for the Great Supreme, and a public invitation to the world to unite in worship and praise. The law of taste requires that the outward form of the church should, so far as practicable, embody these ideas. That there is a language in the contour of a building, is as true as that there is expression in the form and features of the human face; and an artist's power can speak the meaning into blocks of stone, and make them convey the thoughts of the reverential mind, and the feelings of the devotional heart. The pleasant countenance of one person assures the stranger of a kind heart and a sympathetic nature; while the cold and forbidding look of another, sends a chill through the veins. We often say that virtue and benevolence are written in the features of one man, and that vice and avarice lurk in the wrinkles of another's face. The same habit of observation directed to the expression of buildings, would enable one to distinguish at once their characteristics, and to judge correctly of their appropriateness.

But no very great practice is necessary to perceive that the churches in the country do not impress the mind with the ideas we have mentioned. There is too frequently no element of beauty in them. Hastily constructed in no style of architecture, as cheaply finished as conscience would allow, with no tasteful surroundings, they stand in open space, seemingly deserted, while their frail, tottering spires point mournfully to the sky. We are persuaded that ignorance of any better mode of building, rather than intentional neglect, lies at the bottom of this deplorable condition of our country churches. They have been imitated to a great extent from the rude models which our early church edifices furnished, and rural taste has never come in to suggest her always beautiful decorations, nor has American architecture supplied us with designs true to the idea of a House of Worship. We ask for nothing classic, nothing elaborate, nothing lavishly expensive, but we wish to see edifices appropriate, simple and beautiful. Some deviation from right lines and clumsy steeples, some adaptation to the location, and above all, some trees and shrubbery to give a rural effect are particularly desirable. Why not have a lawn well kept, surround the church, the shade of our forest trees overhang it, and vines and ivy embower it? Every hour spent in decorating the grounds about the church will deepen the affection for it, while if its forbidding appearance be once changed into one winning and pleasant. the lessons which fall from its pulpit would touch many hearts now insensible to the beauties and truths of goodness and piety.

We present a cut which may suggest some idea of the harmonious and truthful expression which may be given to a country church, but even this would look bare without the trees. It is to be regretted that we have not more designs of the right order. A promising field lies open to the architect in this direction.

The Dairy.

Management of Cream.

G. H. T. inquires how to manage cream, so that the greatest quantity of butter can be obtained.

From my short experience, I draw my conclusions. The cream should be taken from the milk immediately after the milk changes or sours, and before the milk thickens or curdles. If it is taken off while the milk is sweet, the cream should stand until it sours a little, before it is churned; and while standing it should be brought to the required temperature.

The process of churning should be very steady, and should require about one hour of time, to produce the greatest quantity of butter.

I do not think there could be much gain in cooling the milk before taking it to the milk room. Our custom is in warm weather, to open the door early in the morning and late in the evening, so that the warm air may pass out, and the cool air in. The room should be kept closed during the day. I think a damp room or cellar is actually detrimental to the raising of cream; because the quantity of cream is less, and lighter colored, softer and thinner, so much so that it easily runs through the skimmer while skimming.

The cause of cream becoming hard and scaly, is in consequence of the wind blowing upon it, or a current of air passing through the room. H. T. Richmond. *Butternutts, Otsego Co., N. Y.*

Turneps and Milk.

Having seen in the April No. of the Cultivator, a recipe headed "Turneps and Milk," for removing from milk the unpleasant flavor produced by feeding turneps to milch cows, I thought I would give through the colums of your paper to those interested in this matter, my experience on this subject. Our dairy consists of 15 cows, mostly native, varying in the quantity of milk each one yields, from 32 quarts to 12 quarts per diem. During the past winter they have been kept mostly in the stables, turned out but once during the warmest part of the day, for fresh air and water. Their diet has consisted of good sweet meadow and clover hay, and turneps, nearly one bushel per diem to each cow. Now I am coming to the point. To prevent the turneps from imparting their unpleasant flavor to the milk, the cows were fed with them morning and evening, *immediately* after each milking, for this reason—that between the hour of feeding, and the following milking, sufficient time elapsed for the turneps to be digested, and to have passed by means of the blood through the system, and carried off from the body by perspiration and their droppings. In this manner our dairy has been kept, and notwithstanding the milk has passed a number of as delicate palates as you can find in the country, I never heard of a trace of turneps being discovered.

Another simple method of removing the flavor of turneps, where farmers have the necessary means and conveniences, is to put the turneps into a large box, with chopped hay, straw, or corn fodder, together with the meal or bran, and steam the whole together until they are soft, and until the mixture is perfectly saturated with water. By this process, all the strong unpleasant flavor is removed, and a palatable one imparted.

Besides this, I have found by experimenting in feeding milch cows warm and cold food through the winter, at least 40 per cent difference in favor of the warm steamed food. W. F. Sands. *Romulus, Seneca Co., N. Y., May* 6, 1853.

Manufacture of Cheese.

We find in the Journal of the Royal Ag. Society of England, "*a detailed account of the making of Cheshire Cheese, by* Henry White," for which a prize of $250 was awarded by the society, which we propose to transfer to our pages, believing that we cannot do our cheese-makers a better service, long as it is, than to copy it entire.

It has sometimes been a matter of dispute among Englishmen, which particular county or district is the most famous for the making of cheese. I think, if quantity is to be taken into account as well as quality, the decision must be in favor of Cheshire, as there cannot be less, upon a moderate calculation, than 12,000 tons made in that county annually; a considerable portion of which is of excellent quality.

It is scarcely necessary to premise that milk, from which cheese is made, consists of three distinct parts—*cream, curd,* and *whey*—into which, by repose, it spontaneously separates; but the process of separating the whey from the other bodies, may, as in cheese-making, be accelerated by infusing a small quantity of a simple acid extracted from cured and dried maw-skins, which have been previously dissolved in warm water. This infusion is commonly called "steep," but more properly *rennet*.

The art of cheese-making consists in the complete extraction of the whey and in the proper compacting and curing of the curd. The richness of the cheese depends upon the quality of the milk, or, in other words, on the proportion of cream which the milk contains. The cheese of Cheshire is professedly made from new milk, or milk from which no cream has been taken. It is, however, well known, that in many dairies, in the morning before cheese-making, a small quantity of cream is skimmed off the previous evening's milk; this cream is either churned by itself, or mixed with whey-cream, by which there is obtained a better quality and greater quantity of (so called) whey-butter. It may appear singular to some, that any portion of cream should be found in whey, but such is the fact, and the means used in Cheshire for extracting it are very simple.

Before entering into a detailed description of the mode employed in Cheshire in the making of cheese, I would remark that this Essay is founded upon my own observations, made during a fifteen years' residence in, and intimate connection with, that county; which latter is still existing. I have long felt an interest in the subject of cheese-making, with a desire to see it conducted upon more scientific principles, from a conviction that, were such the case, both the pocket of the producer and the stomach of the consumer would often be more agreeably filled; but I do not wish it to be supposed from this remark, that I profess myself conversant with these principles; my information being more of a practical nature, and as such I offer it to the Society.

Number of Cows kept, and Produce.—The number of cows kept for the purpose of a cheese *dairy* is seldom less than 8 or 10, or more than 70 or 80; and is of course regulated by the size of the farms—these average about 90 or 100 statute acres, upon each of which about 15 or 18 cows are kept. From 18 cows, a cheese of from 36 lbs. to 54 lbs. weight is made daily during four or five months of the summer. The annual produce of cheese per cow depends both upon the quality of the animal (with the mode of keeping her) and of the *land*, or rather the *herbage*. I have known many farmers sustain great loss by not feeding their cattle sufficiently well in winter. With judicious management, about 3 cwt. of cheese (or 336 lbs.) may be considered as the average amount made per annum upon land let for 30*s.* a statute acre; but in a few instances 5 cwt. (560 lbs.) per cow, and even more, is sometimes made. This can only be from a small and choice stock.

The Season.—It is the practice amongst farmers in this county, to arrange so as to have most of their cows calving in the months of March and April; and so soon as the calves are fed or diposed of, the cheese-making commences, and continues to nearly the end of the year. In January and February the quantity of milk obtained is often so small that the farmer prefers selling it in the neighboring towns or making it into butter. There are however instances, in large dairies (of 70 or 80 cows), of cheese being made throughout the year.

Milking.—The operation commences about five o'clock in the morning, and five or six in the evening. In this county it is the practice for most of the servants, both men and maids, to assist, and for the cows to be milked in the cow-houses (called here "shippons") all the year round. When, as is usual, there is one milker for every six or seven cows, the milking seldom exceeds an hour and a quarter.

The milk of new-calved cows is not mixed with the other until about four or five days after calving.

Offices and Utensils.—As the evening's milk is seldom made into cheese until the following morning, and sometimes in small dairies (where four "meals" are used) not until the second morning, a cool "milk-house" is necessary; on which account it usually occupies that side of the farm-house least exposed to the sun. The utensils in which the milk is kept are usually portable shallow earthenware vessels called "pan-mugs," and in some dairies leaden or zinc coolers. Most of the milk-rooms have lattice or wire windows for the circulation of air, and the floors are laid in a sloping form for the free escape of the cold water with which they are daily swilled throughout the summer months. If precautions of this nature be not attended to, there is a risk of the evening's milk becoming *sour;* in which case, whatever quantity of new milk be added to it in the morning, the cheese will be *sour* also. I am led to believe that a temperature of as near 50° Fahrenheit as could be maintained, would be best for a milk-house throughout the year. The *dairy* is generally situate near the milk-house, and fitted up with two *set-pans* or *boilers*—a large one for scalding the whey, and a smaller one for heating water. The "cheese-presses" and "screw" are kept within this room, and the operation of cheese-making is here carried on. Some farm-houses are not provided with a *dairy,* and the cheese is then made in the *kitchen*—this is commonly the case on small farms. The "salting and drying house" (often one and the same room), if conveniently situated, adjoins the dairy. The cheese is placed here on stone or wooden benches, salted *externally,* and is afterwards left so as to dry gradually before being removed to the cheese-room. By some dairy-maids, this external salting is dispensed with, and the room is then of course only used for *drying.* These offices are all on the ground-floor. In some cases the cheese room is over the dairy, in others over the kitchen, or some other room wherein a fire is usually kept, and sometimes, though rarely, over the *cowhouses* or *stables.* Light and air are invariably excluded, either by a curtain or shutters. The floor is either of plaster (gypsum) or boards, but more commonly the latter; some of the larger cheese-rooms are warmed by stoves, or hot air, and occasionally, though rarely, by fire-places in the room itself. The small cheese-rooms are seldom supplied with artificial heat, except what is gained from the rooms below. Some cheese-rooms are occasionally found to be in the summer time too warm, in which case the cheese has to be removed for a time to a cooler part of the house. This is more generally necessary where the building is slated, and exposed to the noon-day sun; but is seldom or never experienced where the roof is of thatch. The size of these offices is of course regulated by the extent of the farm; where 30 cows are kept I find them nearly as follows:—

	Yds. Yds.		Square Yds.
Milk-house, ...	6 by 3	or about	18
Dairy, ...	6 by 5	"	30
Salting and drying-house, ...	4 by 5	"	20
Cheese-room over dairy and drying-house, ...	10 by 5	(or 8 by 6)	50

The utensils, excepting those I have described, will be noticed hereafter.

Process of Cheese-making.—As the first process—namely, that of extracting the whey and salting—occupies, according to circumstances, from five to seven hours, it is found most convenient to commence it in the morning. This being the case, the evening's milk has to be kept all night in the milk-house. In the morning, the cream having been skimmed off, a portion of the milk is warmed. This is done in a circular flat-bottomed brass or tin pan, floated in the boiler, the water of which has been previously heated for that purpose; the size of this pan is about 20 inches in diameter and 8 inches deep. The quantity to be warmed depends upon the state of the weather; for the first two or three months of the season (say March, April and May) it is not unusual to heat as much as half the evening's milk to a temperature of 100° Fahrenheit, and this heat is rarely exceeded, excepting by those dairymaids who wish to save themselves trouble in the after process. The "cheese-tub," which is similar to a brewing-tub, having been placed in readiness in the dairy, the cold milk is now put in and the warm added. Supposing the temperature of the cold milk to be about 50°, and the warm 100°, and they were in equal proportions, the heat after mixing would be 75°, or something less; but in warm weather it will be sufficient if it reaches 70°. I have known instances of good cheese being made in summer without warming any portion of the evening's milk; indeed such now is becoming the general practice. In very warm weather some dairymaids think it necessary to reduce even the temperature of the morning's milk. The *cream,* which is diluted either in about double its quantity of warm or new milk, or by being exposed to the heat of the boiler in the same way as the milk, is next put in. I have before stated that it is customary to retain a small part of the cream for butter; when this is the case, it is considered best to skim it off the whole surface of the cream before diluting, as by that means the froth and bubbles, which are supposed to be prejudicial to the cheese, will, for the most part, be taken off. This leads me to the conclusion, that *fixed air,* if it gets mixed in the curd, has been found to be detrimental. Since warming of fluids has a tendency to dispel this fixed air, it is perhaps worthy of consideration whether it would not be better to warm the *whole* of the evening's milk to the required temperature, rather than heating a *part* of it so high as 100°. The process adopted with the evening's milk, as above described, is generally finished previous to the time of milking in the morning; but if not, the dairy-maid stops and completes it before the *new* milk is brought in from the cows. This new or morning's milk is then added by passing it through a *sieve* placed upon the "cheese-ladder" over the cheese-tub. When the whole is thus collected, some few bubbles are invariably found floating on the surface; these are skimmed off and passed through the sieve to break them.

One of the most important points now to be attended to is the heat of the milk preparatory to coagulation, as the milk, if at a proper temperature, should now be ready to "set together," that is, to receive the rennet. This heat is rarely tested by any other thermometer than that of the dairymaid's hand; some may, and I have do doubt do, determine it pretty correctly, but cannot always.

In consequence of the changes in the weather it is difficult even for an experienced dairymaid to know at all times, what proportion of the evening's milk should be warmed; she is therefore cautious not to warm too much, until the morning's milk is added and the consequent heat ascertained. If it be deemed too cool, a little of the evening's milk which has been reserved is then warmed, so as to produce the heat required; but when none has been reserved, the necessary quantity taken from the tub after the admixture of the two milkings is warmed for that purpose. Little is known amongst the farmers or dairy-maids as to the *precise heat* which is best. I have seldom heard the subject named, except by a vague comparison, that such and and such dairies were made *colder* or *warmer* than others. I am acquainted with some farmers whos wives are said to have a peculiar method of their own, and who, I believe, obtain a high price for their cheese in the Manchester market; chiefly from the tendency of the cheese to green mould. I know little of the system which these parties adopt, but I understand they make their cheese "cold"—that is, set the milk together at a low temperature; and I am also inclined to think they use less salt than others. I have not solicited the *privilege* of prying into the *mysteries* pursued in these dairies, nor could I expect to have been so indulged, if I had, especially if they supposed it was for publication. It is said these parties get a greater price for their cheese than many of their neighbors, which I have no reason to doubt; and I think, from what I have seen, they make quite as great a quantity per cow. But the *real* price obtained, and the *precise* quantity made in any particular dairy, is seldom known beyond the farmer's own family and the factor.

I ought, perhaps, to state that I have tasted some of these cheeses, and find them generally very good, fair toasters, and without coloring; but in some I have detected a slight sourness; from this cause, or, what is more probable, from too little salt being used, the cheese will not keep long before decomposition takes place. To the farmer this would only be of consequence in the event of his not being able to sell the article at the time he wished. In the dairies where I have been permitted to take observations, the lowest heat of setting the milk together was 77°. I am disposed to think those who make a so-called *cold-cheese* do not adopt much lower temperatures, even in summer, than 74° or 75°; since a much longer time would be occupied in gathering and compacting the curd, and considerable risk incurred of having what is termed a *sour cheese*.

The evening's milk in the tub being at or about 75°, as before stated, and the milk which is brought from the cows 90° or 95°, the temperature of the whole is then found to be somewhere between 80° and 85°; and I am of opinion that the heat at which milk ought to be and is commonly coagulated ranges between those two temperatures.*

When *coloring* is used, which is not so extensively the case as formerly, it is put into the milk immediately before the rennet. The nature of the article used for this purpose, I propose to investigate under a distinct head in the Appendix. The *quantity* of coloring is in some degree regulated by the quality of the milk; if a considerable portion of the cream of the evening's milk has been taken out for making butter, a greater quantity of this coloring matter will be required to give the cheese that appearance which is found necessary to please the *eye* of the consumer, and particularly of those residing in London or at a distance. *Annatto* (or rather a coloring matter which *goes by that name*) is the article used; 1 lb. of it for each ton of cheese is a moderate calculation; this would be after the rate of half an ounce to 75 lbs. The present retail price of the "best *real* Spanish annato" is 4*s.* per lb. The coloring is prepared and applied in different ways, but the most common is to take a piece of the requisite size, to fold it in a small bit of linen, and put it in half or a quarter of a pint of warm water the previous night. By this means it gets sufficiently dissolved. When the infusion is poured into the milk, the linen bag containing it is dipped in, and rubbed betwixt the fingers until the coloring is all discharged. The dregs, if any, remain in the bag.

The *rennet*, or *steep* as it is commonly called, is next added. I have already stated in the introduction, that this is an infusion made from the preserved stomach or maw of sucking calves, thence called *maw-skins* or *bag-skins*. A recipe for preserving the skins will be found in the Appendix. To define the quantity of rennet sufficient for coagulating a given quantity of milk is a very difficult matter, as the maw-skins vary so much in quality. When the farmer is laying in a stock for the year, he generally calculates upon a dozen of skins to a ton of cheese. In using them, it is the practice often to cut two skins at once. Three square inches taken from the *bottom* (or strongest part) of one, and one or two inches from the top (or weakest part) of the other, is generally found sufficient for sixty gallons of milk. These two pieces of skin are put into a cup containing about half a pint of luke-warm water, with the addition of a tea-spoonful of salt, some part of the day previous to being used. The water thus impregnated with the maw-skin is passed through the sieve in to the milk, but the skin itself is generally, though not always, kept out. The rennet cup is well *scalded* before being used again. I have been told that some farmers make a sufficiently large quantity of rennet to last several weeks, and find it to answer better than making a small quantity daily. The question is, will it keep *sweet ?*

The coloring and rennet having been put in, the milk is well stirred and left to coagulate. It is usual to invert the skimming dish on the surface of the milk—a practice of doubtful propriety, for this reason, that the curd immediately under it does not attain the same adhesiveness as the other, and is one of the causes of what is commonly called *slip curd*. The tub is now covered up, either with a wooden lid, or with cloths supported by the "cheese ladder;" these assist in preserving the heat of the milk, and protect it from dust and dirt.

The coagulation (or "coming") is generally effected in an hour or an hour and a half. As far as my own observations extend, I am led to think that an average of these two is sufficiently long, if the proper means are used in effecting the formation of the curd; for it is well known that, *cæteris paribus*, the warmer the milk is at the time of setting together, or the stronger the rennet, the sooner will the coagulation take place, but the curd will in consequence be tougher, and less in quantity; on the contrary, the cooler the milk, or the weaker the rennet, the longer will the curd be in forming, and the more tender its quality, but its quantity will be greater. By attention to these results the cheesemaker may soon decide when too much or too little rennet has been put in the milk, and correct the quantity the next time. It may be proper here to state that too much rennet has a tendency to impart an unpleasant flavor, or bitterness, to the cheese.

It may generally be expected that the heat of the curd when formed will be four or five degrees less than the milk was when set together; and it is desirable, particularly in cool weather, that this difference should not be greater, otherwise the subsequent labor will be more difficult. To determine exactly when the *curd* is in a fit state for what is called "breaking," requires some practical knowledge; with attention this is soon acquired. The point is generally determined by gently pressing the surface of the milk with the back of the hand, or by lifting up the skimming dish, beneath which the curd and whey will distinctly appear if the coagulation is complete. Another criterion is the color of the whey, which should be of a pale green.

[To be continued.]

Profitable Cow.—I give below the product of my cow for six months and a half, commencing the first day of April, 1852. The account was most accurately kept.

The amount of butter made, 301 lbs., at 17c,.	$51 17
Milk used by family, ...	7 00
Calf, ...	2 00
	$60 17
Cost of keeping in pasture, ...	5 00
	$55 17

The cow is five years old, a cross of the native and Durham. She has the appearance of doing better this year than last. C. C. R. *Oswego*, *May* 9, 1853.

---

* Since writing the above, I have met with a farmer in Eddisbury Hundred, who says he used the thermometer during the year 1841, for the first time, and that the heat he uniformly adopted was 84°. I also found a thermometer at another dairy near this, but it was not in use. I was allowed to test the heat of the milk with it, and found it 78°; this was in *June*. The precise heat at which milk ought to be coagulated is a matter of vital importance in cheese making, and can only be ascertained by a series of careful and judicious experiments made by scientific and practical parties.

Horticultural Department.

Mulching.

This process, although known and practiced for many years by a few cultivators, has become extensively adopted only at a very late period. It seems peculiarly adapted to our hot and dry summers, and operates chiefly in preserving the moisture of the surface, and in preventing the growth of weeds. The moisture at the surface of the earth from rains and dews is quickly dissipated under a hot sun; and if this surface is allowed to become covered with a dense growth of living grass and weeds, these pump out of the soil and throw off into the air a much larger quantity of moisture than is evaporated by a bare surface of earth only. But if this surface is covered with a few inches of old straw, hay or leaves, the moisture is retained in the soil, and the growth of weeds prevented. As a general rule, we have found it most advantageous to leave the surface bare and keep the soil well mellowed till near midsummer, and then to apply the mulching. For a covering of litter, while it promotes the humidity, also prevents the heating of the soil, and in this way may retard early growth if applied too soon. There are exceptions, however; one in the case of large, deeply-rooted trees not affected by nor needing mulching, and the other where small plants, which are removed in summer, need the careful and constant retention of the moisture of the earth. We have succeeded, with scarcely one failure in fifty, in transplanting the strawberry in the drouth and heat of summer, by simply giving the surface a mulching of two inches of barn manure, and on which the watering was poured when necessary. Indeed, there is nothing that better prevents the ill effects of baking by surface watering, than a covering of this sort of a moderate depth. Mulching will, however, promote moisture in the soil, even when neither artificial nor natural watering is given, simply by arresting such as rises upwards through the earth. In one instance a striking illustration of this effect was furnished during a very long season of drouth, which injured and threatened to destroy a row of newly transplanted apple trees. Their leaves had already begun to turn yellow, and growth had ceased, but on coating the ground about them with a crop of mown weeds, a change was soon effected, and in three weeks the leaves had returned to their deep green hue, and in some instances growth had recommenced. But on no kind of tree is mulching more necessary than on newly transplanted cherry trees. Thousands of these are lost every season, after they have commenced growing, by the drying heat of midsummer, and the evil is sometimes increased by superficial watering. A deep mulching will generally prove a complete remedy if seasonably applied.

Some interesting facts on this subject were stated, and valuable suggestions made at one of the conversational meetings of the Massachusetts Horticultural Society. S. Walker remarked that he had used tan, sawdust, litter, leaves, &c., but he believed short, newly mown grass one of the best things,—he had mulched a great deal with it, and found it laid close to the soil. He also recommended the succulent weeds of the garden or roadside. He found tan and sawdust to be useful merely by retaining the moisture. D. Haggerston had found sedge from salt marshes best, particularly if cut short; a good watering upon it made it lay close to the ground. He found it excellent for strawberries. He had also found tree leaves excellent, if they had partly decayed, so as not likely to be blown away. Old hot-bed materials made of leaves and manure had proved particularly fine. Several spoke of the ill effects of too deep a mulching, but we think the more common error is in spreading the covering of the soil too thinly.

Mulching is a very easy and cheap practice, and the season is now at hand when our readers may prove by varying experiments the best mode of performance.

Thinning out Vegetables.

It was Cobbett, we think, that remarked, when speaking of the ill effects of thick planting, that one cucumber plant in a hill would bear more fruit than two, two more than four and so on, and if there were fifty plants in a hill, the whole of them put together would bear no cucumbers at all! The truth is, there is a much greater loss in allowing vegetables to stand thickly together, than most are at all aware of. To insure a crop, plenty of seed is sown, with the intention of thinning at the proper time; but when thinning day arrives, it requires rather more nerve to commit what appears to be the merciless havoc of tearing out nine-tenths of the beautifully growing young plants, than most persons possess. A crop of beets has just commenced forming handsome bulbs, precisely one inch asunder in the row; certainly something of the boldness of the surgeon it needs to lay nine-tenths of these withering in the sun—cucumbers are just beginning to throw out their runners and to show their yellow blossoms, and it seems to some a hard matter to tear out three-fourths of the dozen now growing in the hill. It must however be done—all the surplus plants in a bed of beets or turneps, or in a hill of cucumbers, squashes or melons, are to be regarded as so many positive, downright *weeds*, obstructing the growth of the rest and yielding but little or nothing themselves. If our crops are to be crowded and stunted, we would quite as willingly have it done with pig-weeds and fox-tail, as to have them smothered and the soil exhausted by weeds of their own species.

Many years ago, when the cultivation of the ruta baga was first introduced, we could invariably distinguish the crops of the novice, by the thickly growing, half-developed bulbs. "O! but they had thinned them to a very great extent—they had cut out three-fourths, and reduced them from one inch to four inches in distance," whereas none should ever stand nearer than a foot to each other, if the soil possesses any thing like a fair degree of fertility; but this looked too much like indiscriminate slaughter, and could not be thought of for a moment. The finest specimens of garden products, which we see exhibited at horticultural shows, are those which have been well thinned and allowed every opportunity to develop themselves freely; and the same is true of ornamental plants, where a full, rich, and luxuriant growth and bloom, are obtained through the adoption of the same principle.

Insect Repellers—Sulphur and Mercury.

Our readers have no doubt often heard of the use of sulphur in repelling insects from trees, the application being made by "plugging," and the sulphur being diffused through the sap, and rendering the leaves offensive to insect depredators. The use of quicksilver has been similarly recommended. The question appears never to have been asked whether either of these substances is soluble in water, and capable of being carried by the sap through the tree, and it has been taken for granted by many that if so diffused, these substances would certainly repel insects. No doubt the operation of boring and pounding in plugs would sometimes tend to drive away such intruders, but this is all that can be said in its favor. At a late conversational meeting of the Massachusetts Horticultural Society, Dr. Wight stated, that three years ago he bored a hole into an apple tree, poured in quicksilver, and plugged the hole tight. One year after, he opened the hole and found the quicksilver (as a matter of course) in the same state and in the same quantity as when put in; it had not undergone the least change whatever. In an other tree he bored a similar hole, and inserted roll brimstone; a year afterwards it was opened with the same result as the other experiment —not the least change had taken place—the sulphur remained as when put in. The truth is, no other result *could* have taken place

Destroying Black Ants.

"My yard and flower garden are much infested with black ants, to the destruction of some roots and some shrubbery. I am unable to drive them away by any method I can devise or learn of others. If you can direct me, you will confer a favor. S. M. B. *Hannibal, N. Y., May*, 1853."

Not having been much troubled with black ants, we can only recommend the *trial* of the following: With a smooth crowbar, pierce the ground with several holes where the ants are most abundant; into these they will fall and be unable to get out. In sandy or gravelly soil, it may be difficult to form smooth holes, except immediately after a heavy rain, or artificial flooding—on clayey soils it will be very easy. A few quarts of hot water, poured into the holes, will make short work with the prisoners. Cheap tin vessels, six inches in height, and the size of eave-trough conductors, or perhaps wide-mouthed vials, set into holes thus made, could be more perfect traps, and some inviting substance, as molasses or sugar, would doubtless assist in decoying them. The European horticultural journals state that the tomato plant is very offensive to them, and that if the surplus plants which grow in most gardens are pulled up and laid in the vicinity of places infested, the ants will soon retreat. Whether all the different species would be similarly influenced, is another question.

Cayuga Horticultural Society.

President—H. T. Dickson.
Vice-Presidents—P. R. Freeoff, George E. Barber, John Morse, Oliver W. Wheeler.
Cor. Sec.—Horace T. Cook.
Rec. Sec.—S. S. Graves.
Treasurer—John S. Clary.

Clean Cultivation of Trees.

The importance of a deep, mellow soil for young trees, kept clean by constant cultivation, is well understood by skilful fruit-raisers, and should be fully appreciated by all, and acted upon at the present season of rapid growth.

Some years since, T. G. Yeomans, of Walworth, N. Y., well known as a very successful culturist, informed us that his young standard trees, which stood among his smaller trees in his nursery, where they were subjected to continual cultivation, and where the young nursery trees made but little draught on the soil, made twice the growth of those in a field of beets, which were kept hoed well through the early part of the season only, and which, precisely like a large growth of weeds, drew freely on the soil. A similar statement is made in the Genesee Farmer, of an experiment in sowing carrots between the rows of young apple trees. The rows of trees were 3½ feet apart, and a single row of carrots was sowed between them. Although they were all kept clean during the summer, yet other trees of the same age and treatment, without carrots, made twice the growth.

The owners of orchards, in their great anxiety to get something in the shape of annual crops from the land, often lose ten times as much in the value of fruit. A certain farmer (rather *uncertain*, however, in this instance,) would not sacrifice five dollars worth of pasturage by plowing up and leaving bare the ground of his orchard, although it already afforded him fifty dollars per acre in crops, and would have paid him over one hundred per acre in better fruit and more of it, if he had only kept it mellow by plowing and harrowing. The finest market peach orchard we ever saw, in full bearing with very large and delicious fruit, was kept as mellow as an ash-heap the season through, and no crop allowed to grow upon the soil, which the proprietor found by far the best and most economical mode of management.

The Narrowed Gardens in Cities

A great deal of skill may generally be exercised in making the best use of such materials as happen to be placed in our hands. Spending a few days with a friend in one of our large cities, we were struck with the great variety of vegetable growth which had been introduced into a space of 25 by 30 feet of ground. It was entered from under the back porch, which was ten feet square; the space between the eaves of this porch and its floor, on one side, was covered with the scarlet trumpet honeysuckle on a simple trellis; from the front roof, projected a trellis-work drooping roof, five feet wide, on which a Catawba grape-vine was handsomely trained,—the whole presenting much of the character of a country arbor. The ground was surrounded by a flower border, and this was separated from an inner flower border, by a walk passing round the whole. In these two borders we counted nearly an hundred and fifty different species or varieties of ornamental plants, a considerable portion in bloom, and a part of them were so trained as to cover the garden walls with verdure. The back offices were covered with one or two fruit trees by fan training, and with a single Boursalt rose spread over a surface of ten feet in width and twelve in height, and on which we estimated the number of about 800 roses in bloom at the time. The roof of the back buildings was surmounted by grape trellises, twenty feet above ground, on which vines were trained, forming a a handsome sky outline for the back view.

The Kitchen Garden.

Endive, or Chicory—This, for salad, takes the same place in winter that lettuce occupies in summer, and when well grown is equally valuable. There are two very distinct varieties; the one is curled and narrower in the leaf, and in flavor is bitter, unless it is well blanched, but it forms a large head, as fine as well grown Cabbage Lettuce. The other sort is the "Escarole" of the French, and is sweet in flavor, with a wider and flatter leaf, which comes earlier in the season but does not usually form so close a head, although it is preferable in flavor. Both should be grown in quantity, the latter for the autumn and early winter, and the Curled for keeping in a cellar, laid in close together by the root as we recommended for celery. Sow twice, early in July and the first week in August. The broad leaf, (which is the Escarole,) for the first crop, and the Curled Green, (which is the most hardy,) and some White Curled for the second crop. Let the ground be as rich and light as possible. The finest lettuce and endive may be seen growing in the swampy ground near Jersey City, to a size which will satisfy the most sceptical as to the kind of soil that suits such crops best. Sow in drills one foot apart. Thin out to nine inches apart for early crops, and a foot for the Green Curled. When the leaves are from seven to nine inches long, the blanching may be commenced. This is by many carelessly done with plants intended for immediate use, by simply throwing a thin board on the top of the row of plants. But this is such unworkmanlike, slovenly gardening, as we cannot commend. The proper way is to draw the leaves of each plant together with one hand, and tie a piece of bast-mat, or cotton-twist round them; then draw a little earth up to the root. The top of the leaves, in this operation, should be brought close together with the tie, so as to exclude wet; but in the middle the leaves should not be pressed too close. They will blanch in a week or fortnight, according to the weather; a few, therefore, should be tied at intervals as wanted. The way to have it in *perfection* in winter is to grow it in frames with glass lights, and it is well worth the expense of them. But even four boards nailed together with board shutters to lay across in severe weather, will prove a good substitute. The plants may be first grown fine in the open ground, and be transplanted into the frames *with a good ball* of earth to each, at the approach of winter; and any decayed side leaves being removed at the time of transplanting, they may be placed close together, the object being to preserve them rather than encourage further growth.

Jerusalem Artichoke.—This, in reality, is no artichoke at all. It is a species of sunflower. The roots have some resemblance to the potato, but their texture and flavor are very different, and partake more of the character of sea kale and asparagus, although inferior to those valuable vegetables. They grow very tall, frequently ten feet or more, and should therefore be planted where their shade will not be detrimental to other crops; and they will endure any situation, in any out-of-the-way corner, as the shade of trees does not perceptibly hurt them. They are grown from the roots like potatoes. Light, good soil suits them best, but they will produce a fair crop in any soil. At the approach of winter they should be taken up and kept in sand. They are best boiled and eaten as a vegetable with white sauce.

Salsify.—This is sometimes called the Vegetable Oyster, from its flavor bearing some resemblance to that fish. It is a root vegetable, resembling a parsnep. Sow the seed in drills a foot apart in April or May. Thin them out to six inches, and cultivate like other root crops of a similar nature. It is hardy and will stand the winter. Some people use the tops in spring for early greens. It may be stored in sand in the cellar for winter use. B. M.

Remedy for the Cherry Slug

Having so often received instruction from the perusal of contributions by practical farmers, dispensed to us through the medium of your valuable paper, I take the liberty to give a little of my own experience.

The cherry slug or snail, makes sad havoc on our cherry trees in this vicinity. I have previously found lime effectual in destroying them. Last summer I tried dry dust, taken from the ground near the tree; with a shovel make it fine, or you may scrape it from the highway, when it is dry and dusty. Apply profusely, that none of the slugs escape a good covering, and my word for it, they will be minus equally as well as if you had used lime. Renew the application as often as necessary. A. S. Moss. *Fredonia, N. Y.*

Preparing Soil for Grapes.

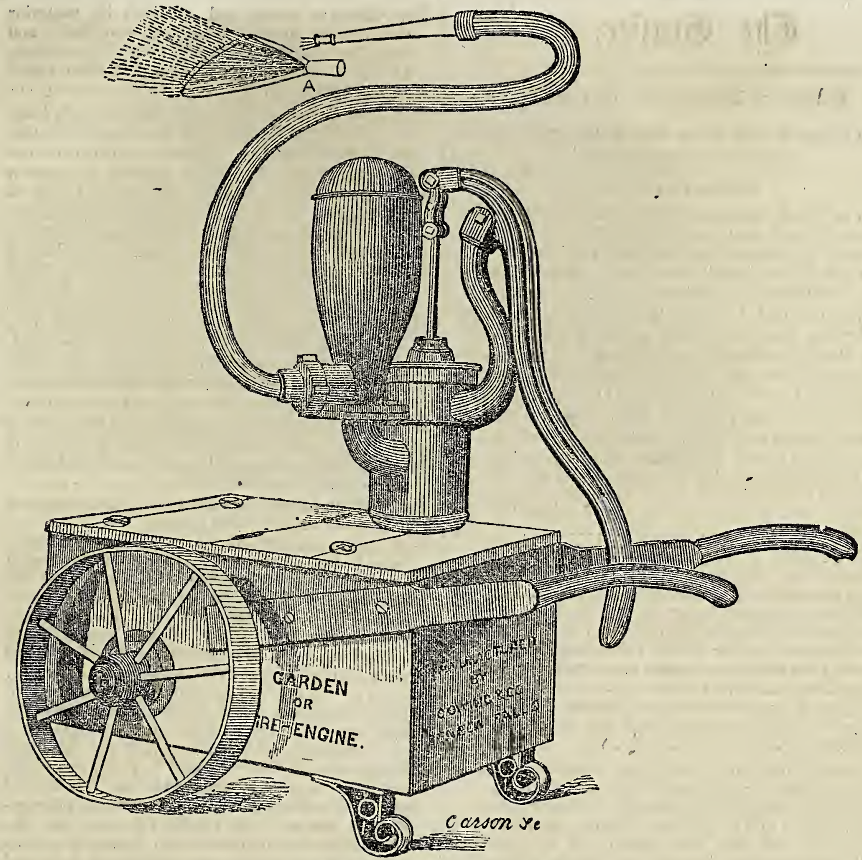
Dr. Underhill, of Croton Point, who has some thirty acres of vineyard for marketing the fruit, has given much attention to *high culture*, and as a consequence his grapes have attained a high reputation in the New-York market for their excellence.

According to a statement in "The Plow," he usually applies twenty or thirty bushels of bone dust per acre, and uses largely a compost made of swamp muck, leaf mold, rich loam, sods, weeds, leaves, and grape-cuttings, with stable manure, liquid manure, or yard-drainings, and potash.

He finds that grapes will grow well upon any soil, except heavy brick clay; and this need not be excepted if well drained, and cobble stones deposited beneath each vine, as looseners. He has applied large quantities of clay to his lighter soils; in one instance, five hundred loads to the acre, but this he found too much. Nearly all his land has been trenched three or four feet deep, but a much cheaper mode of trenching has been lately adopted. It consists of first running a trench-plow (the double Michigan would be just the thing) about fourteen inches deep, followed with the largest size sub-soiler, about as much deeper.

◆

Grafting Wax.—I use for grafting composition 2 parts rosin, 1 part tallow, and 1 part beeswax; put on with a brush, at any temperature that will not burn the brush. This I have used for many years, for all kinds of grafting, and for covering wounds made by pruning, and consider it cheaper and easier applied than any other, and safer. A small iron kettle is best to keep it in. The brush may be made of hair, if bristles are not at hand. L. J. H. *Throopsville, March* 28, 1853.


A
GARDEN
OR
FIRE ENGINE.
MANUFACTURED BY COWING & CO SENECA FALLS
Carson Sc

Garden and Fire Engine.

The above is a representation of a Garden and Fire Engine, manufactured by Cowing & Co., of Seneca Falls, N. Y. From the brief experience we have had with one of these machines, we can bear testimony to its value. It is not less useful for washing the outsides of houses, than for watering gardens, and it must prove of great importance in case of fires, as a steady stream of water can easily be forced on any part of a two-story building. Every country place should have one.

Remedy for Black Knot on Plum Trees.

For a few years past I have been experimenting on plum trees. A large proportion of them are Yellow Gage, taken from Mr. Lasell's nursery, in Schoharie, among which the black knot prevailed pretty largely. Having removed them fifty miles to Delhi, Delaware Co., and transplanting them there, the knots still affected them. The only prescription made, was mixing in the earth for a few inches, and a foot or two around the tree, *pulverized blacksmith's cinders.*

Since that time, some two or three years past, the ground has been annually dug about the roots, rather freely in the spring of the year; and now they are free from the knots, and they had very few last year. They bore well year before last—last year but little, and now they are full of blossoms with a fine prospect of fruit. I have confidence in this treatment—think that the *iron* being absorbed into the body of the tree, exerts a tonic power on it, so as to purify its vitiated fluids, stimulating its vital power to a more healthful action; so that not only the knots are prevented, but a renovation of the health and constitution of the tree is produced. Ferris Jacobs, M.D. *Delhi, May* 18, 1853.

Cure for Rose Bugs.

Among the many remedies given, only one that we are aware of, has ever proved effectual, namely, destroying by first shaking them down on a spread sheet. In some localities where they are abundant on all kinds of vegetation, this may prove totally impracticable, but in ordinary cases they may be greatly thinned without much difficulty. The best mode we have seen described for effecting their destruction, or that which promises the best success, is the following, given in a late number of the Boston Cultivator: In the center of the garden a few bunches of the damask rose are planted, which the rose-bug prefers to everything else, and on which they mostly congregate. When the roses are in bloom, go to these bushes with a broad pan of hot water; and shake or jar the insects into it. By pursuing this practice, they soon disappear.

The Grazier.

Points of Excellence in Cattle.

Adopted by the N. Y. S. Ag. Society, for the guidance of the Judges at their Annual Fairs.

NORTH DEVONS.

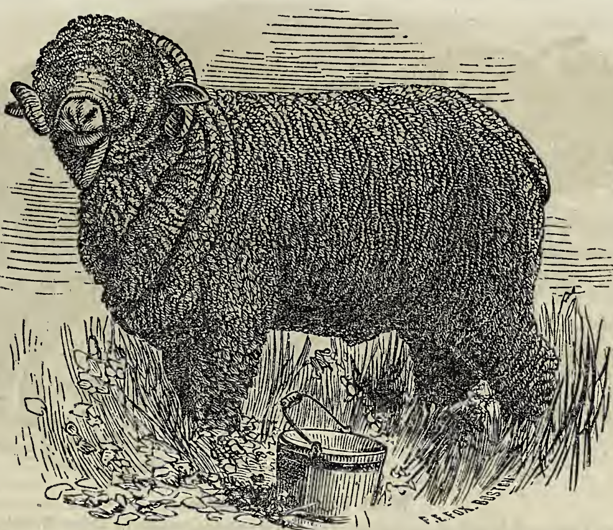
PURITY of blood, as traced back satisfactorily to importations of both dam and sire, from known English breeders, or as found in the lately established Herd Book, for North Devons, and without this, an animal cannot compete in this class.	
THE HEAD should be small, lean and bony, the forehead wide, flat, or from a fullness of the frontal bone over the eyes, somewhat dishing; the face straight; the muzzle fine; the nostrils open; the lips thin and rather flat,	4
THE NOSE of a light, delicate orange color,	4
THE EYE should be bright, prominent, and clear, but mild and gentle in its expression, as indicative of that spirited, but tractable disposition so necessary to cattle that must bear the yoke; a beautiful orange-colored ring should invariably surround the eye,	4
THE EAR—thin; of a rich orange-color within, of medium size, with a quick and ready movement, expressive of attention,	2
THE HORNS—light, tapering, of a waxy color toward the extremity, and gaily as well as symmetrically placed on the head; the occipital bone narrow, thus bringing the base of the horns nearer together,	2
THE NECK of medium length, somewhat light in substance, very clean, and well set up on the shoulder,	2
THE CHEST—deep, and round, carrying its fullness well back of the elbows, thus affording, by the aid of a springing rib, abundant internal room for the action of the thoracic viscera, the heart and lungs, and that too without an *extreme* width forward, and between the points of the shoulders, which might interfere with the action of the animal,	14
THE BRISKET—It being assumed that it adds nothing to the internal capacity of the chest, must not overload the breast, but be sufficiently developed to guarantee a feeding property, attended with a full proportion of fatty secretion,	4
THE SHOULDER is, in this breed, a very beautiful and important point, and should in a *degree* approximate in form to that of the horse. It should take a more sloping position than is found in most other breeds, with its points less projecting, and angular, and the blade bone more curved, thus blending with and forming a fine wither, rising a little above the level line of the back,	4
THE CROPS full and even, forming a true line with the somewhat rising shoulder, and level back, without either drop or hollow,	3
BACK, loin and hips, broad and wide, running on a level with the setting on of the tail,	9
THE RUMPS—lying broad apart, high, and well covered,	5
THE PELVIS—wide,	2
THE TWIST—full and broad,	3
THE QUARTERS long and thoroughly filled up between the hooks or hip bones, and the rumps; with a good muscular development down the thigh to the hocks,	6
THE FLANK—moderately deep, full and mellow in proportion to condition,	3
THE LEGS not too short, and standing as square and straight behind, as may be compatible with activity. The bone quite small below the hock and knee; the sinews large and clean, with the forearm well developed,	5
THE CARCASS round and straight; its posterior ribs almost circular, extending well back, and springing nearly horizontally from the vertebra, giving in fact much greater capacity than would at first appear,	2
THE TAIL at its junction level with the back, long, very slender in its cord, and finishing with a tassel of white hair,	1
THE COLOR, in its *shades* and *degrees*, is more or less governed by fashion; but in the Devon is always red. Formerly the rich blood-red was the favorite color, and the test of purity; and now a somewhat lighter color is in vogue, approaching rather nearer to that of the *South* Devon, which is a larger, coarser, stronger animal. In all cases the color grows lighter round the muzzle, while a dark mahogany color, verging almost to a black, and growing yet darker about the head, always was a very questionable color for a *true North Devon*, more especially when accompanied by a dark nose,	1
THE HAIR should be short, thick, and fine; and if showing on its surface a fine curl, or ripple, it looks richer in color, and is supposed to indicate a hardier and more thrifty animal,	1
THE UDDER should be such as will afford the best promise of capacity and product,	1
CARRIAGE—The Devons having, from their excellence in the yoke, another destiny besides that of the butcher's block, it is all important that the animal's carriage should indicate as much; but to obtain this, something of the heavy, inert, squarely moulded frame of the merely beefing animal, must be relinquished for a lighter and more active frame,	3
QUALITY—On this the thriftiness, the feeding properties, and the value of the animal depends; and upon the touch of this quality rests, in a good measure, the grazier's and the butcher's judgment. If the "touch" be good, some deficiency of form may be excused; but if it be hard and stiff, nothing can compensate for so unpromising a feature. In raising the skin from the body, between the thumb and finger, it should have a soft, flexible, and substantial feel, and when beneath the out-stretched hand, it should move easily with it, and under it, as though resting on a soft, elastic, cellular substance; which, however, becomes firmer as the animal "ripens." A thin, papery skin is objectionable, more especially in a cold climate,	15
	100

POINTS OF THE DEVON BULL.

As regards the male animal, it is only necessary to remark, that the points desirable in the female are generally so in the male, but must, of course, be attended by that masculine character which is inseparable from a strong and vigorous constitution. Even a certain degree of coarseness is admissible, but then it must be so exclusively of a masculine description, as never to be discovered in the females of his get.

In contra-distinction to the cow, the head of the bull, may be shorter, the frontal-bone broader, and the occipital flat and stronger, that it may receive and sustain the horn—and this latter may be excused if a little heavy at the base, so its upward form, its quality and color be right. Neither is the looseness of the skin, attached to, and depending from the under jaw, to be deemed other than a feature of the sex, *provided* it is not extended beyond the bone, but leaves the gullet and throat clean and free from dewlap.

The upper portion of the neck should be full and *muscular*, for it is an indication of strength, power, and constitution. The spine should be strong, the bones of the loin long and broad, and the whole muscular system wide and thoroughly developed over the entire frame.



“Ten Thousand,” *a French Merino Sheep, owned by* S. W. Jewett *and* H. S. Morse, *of Vermont.*

This wonderful Ram is the admiration of all who behold him; he is only a yearling, and weighs 224 lbs., with a thick coat of wool, as you see, standing all over him. He has fairly drawn the wool over his own eyes. Is owned by S. W. Jewett and H. S. Morse, and may be seen at the World's Fair in the city of New-York. S. W. J.

Training Steers.

A subscriber inquires what is the best way to break steers? To this interrogatory, we say, in the first place, we do not like the term, unless, as is often the case, in bringing animals to the yoke, he wishes to break their necks. In that case, we would recommend to have them grow as wild as possible, until they are two or three years old, and then, by a sudden and powerful effort, try to accustom them to the yoke in the most wild, harem scarem manner possible. In this way, the chances are ten to one that they will soon be broke finally and effectually.

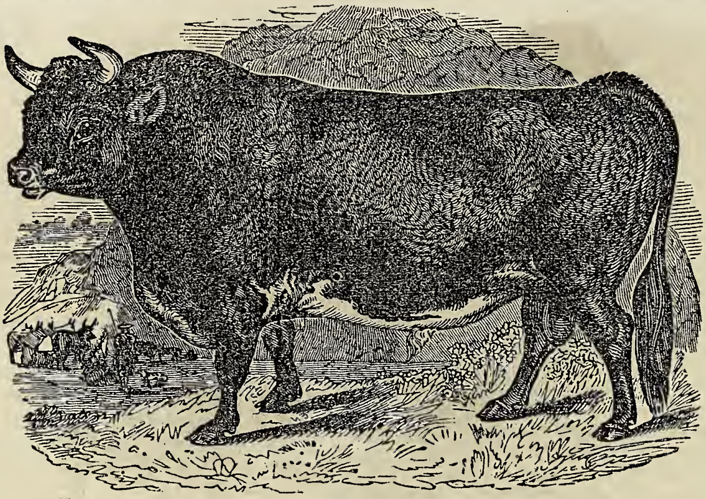
Break steers, is an old and very common phrase, we are aware; but as time-honored as it is, and as often as our friends and fathers have used it, and as kindly as they have transmitted it down to us, we do not like it. Breaking boys! What an expression that would be in an age of refinement, when the fact in the case assured us, that the wholesome process gone through with, simply meant to educate them. To teach them to forsake what is wrong, and practice what is right for its own pure sake. So we consider the process which accustoms the animal to enter the stall, and the steer to submit to the yoke and practice the operations peculiar to oxen, a system of education and nothing else.

Then we would say of animals as well as men, if you would thoroughly and easily educate them, commence while they are young. In both cases, if this matter is delayed, both animals, the biped and the quadruped, grow wild and less approachable, bad habits are apt to insinuate themselves, indolence becomes characteristic, insubordination takes deep root.

So then, we suppose, and our experience goes to establish the theory, that the earlier steers are trained to the yoke and the habits they are to exercise when grown to oxen, the more useful, valuable animals they will become. We have seen steers accustomed to the yoke, learned to draw light burthens on small sleds, and on the ground—indeed to perform all the feats that old and well educated dignified oxen are expected to perform, the winter before they were a year old. It looks like small business, we know, to be teaching so young animals to haw and gee, to back, turn round and go forward at your pleasure. But it is light, easy labor, to learn them these things then—a great saving of manual labor from what it is ever after. They are more tractable, and submit to teaching without the fear which comes of age; and then, they acquire habits of gentleness, which will ever after operate to their benefit. These first teachings are never forgotten. If initiated in these things in calf-hood, they will remember them in steer and ox-hood, will always be better and more valuable animals, frequently of larger size than if left to run wild until the age of two or three years. This is shown, from the fact that the more domestic and docile an animal is, the less food it will consume to acquire a given amount of weight. Who ever saw a wild, bellowing animal, the fear of all who approached it, and afraid of coming into near approach of civilized man or beast unless it were in token of warfare, well clad with flesh—of fine and silky hair?

When we were in the habit of raising steers, it was our first practice to learn them to lead by a rope, fastened loosely around their horns. Having them thus equipped with the rope in one hand, and a light switch in the other, we indoctrinated them in the act of going and stopping—hawing and geeing when we pleased, and what was more, of teaching them by kindness, that they had nothing to fear but much to hope from us, for we always gave them a good lock of sweet hay when the lessons of the day were over. After one or two lessons of one or two hours each, in this way, we yoked them, and with the rope still on the horns of the near steer, learned them to act together—accustoming them to the chain and neap as circumstances dictated. A few lessons, which must be a mere pastime for boys to give, inculcated in this way, will settle the matter with them forever. They will come to you more readily when you visit their pasture through the grazing season, and the next winter they will come to the yoke, almost without labor or any of the risks to your own life and limbs, or danger to themselves, which would be consequent on a wild stout pair.

The habit of learning all horned animals to lead, while young, we consider one of great importance to the farmer, for if once learned they will never forget it. It renders them much more docile, and often in the hurry of a busy season, it may save the strength and labor of one or two men, running and foaming to remove them from one place to another, while a single boy may lead them leisurely and easily along. Yours truly, W. B.



West Highland Bull.

The Kyloe or West Highland breed of cattle is one of the aboriginal stocks of Great Britain. Its habitat is the western shore of Scotland, and the Hebridian Islands. It is a hardy breed, better adapted to rough fare and exposure than any other known; it is also remarkable for beauty of form, and for the excellence of its flesh—in the latter particular, excelling all other breeds. It would be a highly usesul breed in many parts of this country.

Docking Lambs.

In cutting the tail of a sheep, you will find three arteries, two upon the upper side, close to the bone of the tail, and one near the center of the tail, on the under side; this one is much the largest, and the one out of which most of the blood flows when cut asunder.

It is perfectly safe, as to loss of blood, if you tie up the large artery before cutting the tail. First slit down the skin lengthwise, about an inch. The artery, if in a lamb, will be seen about the size of a common knitting needle. Draw a thread of waxed linen or silk under the artery, with the common straight needle, or one a little crooked at the point, is better. Tie up tight before you cut off the tail; which you will sever just below the knot. This is all done very easily, and with but very little loss of blood. You may sprinkle a little dust or pulverized alumn on to the wound to advantage.

Gravel—Lambs, in the winter, are very subject to the gravel. On my second trip to Rambouillet. France, I learned from the chief Bergier how to cure it, if taken in season. It is a simple surgical operation, which I will freely communicate, if applied to. S. W. JEWETT.

To Stop a Runaway Horse.

A correspondent of the Boston Transcript, who has seen a mode adopted in Moscow and St. Petersburgh, gives the following plan: "Around the horse's neck, near the neck strap, is placed a cord in a running knot. To this slip noose is attached a pair of reins—on gentlemen's horses generally of silk cord, about the size of a pipe-stem—which always lie thrown over the dashboard, ready to be seized at once. When a horse starts and becomes unruly, the gentleman takes up this cord and tightens the horse's throat so that he cannot breath. The most furious horse stops almost instantly, but he will not fall or kick. I have seen many such reins upon high spirited horses, even in common city dhroskies."

Charcoal and Salt for Sheep.

A contributor to the North-western Cultivator writes—"It is generally conceded that wet pastures are unfavorable to the health of sheep. I have kept a flock for four years in a pasture of this description—for the first two years with unfavorable results. My sheep were unhealthy and many of them died. I ascribed it to the wetness of my pasture. Upon the recommendation of an old farmer, I gave the sheep charcoal mixed with salt. The beneficial effects of the mixture were soon apparent. My sheep presented a more healthful appearance. I have continued the treatment, and the animals have continued to thrive. I suppose the medicinal qualities of this mixture consist in the disinfecting property of the charcoal." And in the invaluable tonic and alterative properties of the salt we may add; for, like many other remedial agents, this article when given in small doses, augments the digestive functions. In larger doses it is cathartic.—*American Veterinary Jour.*

Management of Poultry.

The following closely condensed hints, copied from an English paper, contain as many valuable suggestions of a practical character, as could be possibly crowded in the same space, and will be valuable to those who cannot read a long treatise:—

POULTRY HOUSE.—"The floor should be cleaned at any rate once a week. It should be sprinkled with sawdust, ashes, peat, or—best of all—peat charcoal. The nests should be lined with moss, heath, or short straw; neither long straw nor hay should be used—the darkest nests are preferred by the hens." A *Poultry Yard* should contain: 1, A grass plot; 2, fine gravel; 3, slaked lime, or other calcareous matter; 4, ashes kept dry by being placed under cover; 5, pure water. *Eggs:* Hens of the best varieties will lay in a season from 160 to 210 each, or, on an average, 185, which, at the rate of even 11d. per score, will realize 9s. 10d. per hen. *Breed:* Evidently the best are the Dorking, and "fowls which have black legs are the best for roasting, while those with white legs are the best for boiling." For laying, the Dutch everyday layers or the Spanish are excellent. *Sitting:* Having observed that the earliest chicks in the neighborhood were every year in possession of the same person, we were induced to ascertain the cause. We found that the eggs were not taken from the nest, and, as soon as she had about 13 she commenced to sit. Fowls indeed, in their native haunts, never lay more eggs in a season than they can hatch. Those who keep Dutch every day layers, or the Spanish hen, should keep three or four Dorking hens to do the hatching business. Remember that no success can be expected from poultry keeping—1st, If their houses be damp, cold, unclean, or badly ventilated; 2nd, if the food they eat does not closely approximate to that which they obtain in a state of nature, viz: a mixture of vegetable and animal food; 3d, if the water they drink be stagnant, the drainage of the manure heaps, &c.; 4th, if the strongest and handsomest be not bred from.

Diseases and Remedies of Poultry.—Provide if you can a separate place for the sick.

Chipping.—This singular and fatal disease of the digestive organs often proceeds from exposure to wet or cold. Remove the chickens to a warm and comfortable place; if they appear very ill put them into wool or flannel; add to half a pint of thick gruel a dessert spoonful of linseed oil, give half a tea-spoonful in the course of the day.

Flux.—Is generally produced by too much soft food; change of diet therefore is the best remedy, while rice, a little hemp seed, and whole wheat, are excellent.

Gapes.—Give every other day from five to ten drops of spirits of turpentine, mixed with barley meal.

The Pip.—Wash the mouth twice a day, with a mixture of equal parts of tincture of myrrh and water, a more simple remedy is to rub some common salt on the sore place.

The Roup (the Gargle in Geese.)—This is one fatal result of ill-feeding and want of cleanliness. Medicine can do little, give one grain of antimonial powder twice a day in a little mixed food.

Vermin.—Keep them clean; provide and keep dry dust for them to bask in; and also fresh fine gravel for the sake of the small pebbles which they need for their gizzards.

Domestic Economy.

Currant Wine.

The following directions for making Currant Wine, were furnished for the Cultivator in 1837, by a Tennessee correspondent, who said—"We are now using some wine, made according to this recipe, and find it decidedly superior to any foreign wine for the table. The imported wines are all too strong."

"Gather your currants when fully ripe; break them well in a tub; press them through a sifter; then strain them through a flannel bag, and measure the juice. Add two gallons of water to one of juice; put three pounds of New-Orleans sugar; stir it till the sugar is quite dissolved. In straining the juice of the currant, use a hair sieve, and not one of wire; then use a close tow linen-bag, and afterwards a flannel one, to pass the juice through. The juice must not be permitted to stand over night. Observe that the cask be sweet and clean, and such as has never been used for beer or cider, and if new, let it be well seasoned. Do not fill your cask too full, otherwise it works out at the bung, which is injurious to the wine—rather make a proportionate quantity over and above, that after drawing off some of the wine, you may have enough to fill up the cask. Lay the bung lightly on the hole to prevent flies, &c., from creeping in. In three or four weeks the bung hole may be stopped up, leaving only the vent hole open till it has done working, which is generally the middle or last of October. It may then be racked off if you please, but I think it best to leave it on the lees till spring, and if not wanted for present use, it may be left on the lees for two years without damage.

"When you draw off the wine, bore a hole an inch at least from the tap hole, and a little to one side of it, that it may run off clear of the lees. Some put in spirit, but I do not think it advisable. Do not suffer yourself to be prevailed on to put more than one-third juice, for that would render the wine hard and unpleasant, nor too much sugar, as that would deprive it of its pure vinous taste. It improves by age."

The annexed recipe, was sent us last year, by a friend in Utica, accompanied by a bottle of the wine made by it, two years old, fully equal to any we have ever tasted.

Currant Wine.—Strain the currants, which should be perfectly ripe. To each quart of juice, put a couple of quarts of water, and three pounds of sugar. Stir the whole well together, and let it stand twenty-four hours without stirring. Skim and set in a cool place, to ferment slowly. Let it remain three or four days; if at the end of that time it has ceased fermenting, add one quart of French brandy to every fifteen gallons of the liquor, and close the cask tight. Bottle when clear; will be fit for use in six months, and improve by age.

Green Ointment.

Messrs. Editors—I send you a recipe for making a salve, which has in some cases proved very useful. J. P.

Recipe.—White pine turpentine, or white rosin of any kind—beeswax—mutton tallow—fresh butter, or hogs lard—verdigris—olive oil—oil of amber—oil of spike—of each one ounce.

Directions for making.—Melt the beeswax, tallow, rosin and lard; then take the vessel from the coals, and put in the oils, and just before congelation commences put in the verdigris, and stir the whole with some convenient paddle, till perfectly congealed. The verdigris must be *perfectly pulverised* before using.

This salve has, under the divine blessing, performed great and wonderful cures on old ulcers, and in other cases where morbid matter required to be drawn through the skin, both on man and beast.

To Make Pure White Soap.

Take soda in crystals, and put it into a barrel with a layer above of quick-lime, and pour warm water upon it, suffering the liquor to leach out in the same manner that ashes are leached out in the woods for making crude potash. This liquor should be filtered through straw, so as to have it pure and clear. Its specific gravity should be 1.040 in the hydrometer. To every gallon of this lye, 11 lbs. of melted suet or white tallow should be added, and it should be kept boiling gently in a clean kettle for four hours. It should then be completely saponified, which can easily be tested by immersing a flat knife in it. When completely saponified, it will shake on the spatula. The fire should then be drawn from the furnace, and a handful of salt, dissolved in cold water, thrown in. This is to cool the soap and separate it from the water. It can then be run off into frames, and when cool cut it into proper cakes. This is good soap, and is well adapted for making into toilet and other soaps.—*Scientific American.*

◆

Preservation of Eggs.—In your last number, I noticed an advertisement of a recipe to keep eggs fresh a year, and the charge is only one dollar. Now, I will give you a recipe, by which I have preserved eggs fresh since last August, and the recipe that I took it from, said that they could be kept fresh three years, but I have never tried it so long, viz: one pint of lime unslacked, and one pint of salt, to a pail of water. If you consider this worth an insertion in your columns, please do o. A Subscriber. *Blossvale, N. Y., April* 8, 1853.

◆

To Preserve Eggs for one Year.—One pint quick lime, one pint salt, to three gallons water; no care is needed in putting in the eggs, as they will be right end up, and will settle just below the surface if proportioned right. J. M. W. *Ogdensburgh.*

◆

He who encourages young men in the pursust of agriculture is doing a good work for the morals of society a hundred years hence.

Notes for the Month.

Sheep Shearing Festival.—The shearing of the flock of Pure Merino Sheep of **Alonzo L. Bingham**, took place as was advertised, at the Hotel of **James K. Hyde**, Sudbury, Vt., on Wednesday and Thursday, June 1 and 2. The days were remarkably fine, and a large number of farmers from the Western States and New-York, as well as those of Vermont, were present. The shearing of the sheep was superintended by a committee of disinterested gentlemen, under whose inspection every sheep was weighed after being shorn, and also its fleece. The utmost fairness was used, and an accurate account kept of the whole. We present below the report of the committee, which was kindly furnished us at the time for publication:

Report of Committee—The undersigned having been invited to conduct the public shearing of a flock of pure French Merinos, owned by Mr. **A. L. Bingham** of Cornwall, Vt., certify that of the *Eighty Ewes* shorn, *fifteen* have been imported the present year, and from the effects of their voyage, sheared less than others of the same weight of carcass; *twenty* were lambs dropped in February and March, and *twenty* in May and June, 1852; *twenty-four* were two year old Ewes, shorn last season; and *one* a three year old Ewe with her lamb, that gave the heaviest fleece in the flock, viz: 33 pounds. The lightest fleece shorn was *eleven pounds four ounces*. The total weight of carcass of the eighty sheep, after shearing, was 8,240½ pounds, making an average weight of 103 pounds. The total weight of wool sheared from the eighty sheep, was 1,344½ pounds, making an average weight of fleece of 16¾ pounds.

Geo. B. Clark, Leonardsville, N. Y.
Jesse Hines, Brandon, Vt.
John Lewis, Poultney, Vt.
D. H. Patchen, Westfield, N. Y.
Caleb M. Dyer, Enfield, N. H.
John Gregory, Northfield, Vt.
C. D. Sweet, Shaftsbury, Vt.
Committee.

It is proper to state that the wool is unwashed, and that its usual shrinkage in cleansing for manufacturing, is *fifty-six per cent.* One two-year old buck sheared 30 lbs. 8 oz. of wool; weight of carcass 216 lbs.

Some fine Hereford cattle, also owned by Mr. Bingham, were shown on the occasion, and the exhibition of Vermont horses, mostly descendants of Black Hawk, was very fine. Among others we noticed a splendid chestnut stallion, owned by I. F. Benson, Esq., of Whiting, Vt., five years old, weighing 1,168 pounds, and possessing fine action; and also a two-year old chestnut stallion owned by Marshall S. Doty, Esq., of Salisbury, Vt., weighing 840 pounds, a very perfect animal. Both of these were sired by Black Hawk, and in form and action strongly resemble their sire.

We have not room to speak at length of the musical entertainment with which "the shearing" was enlivened, or the literary one with which it closed. We will allude more particularly to these another week. As a whole, the affair passed off to general satisfaction, and will not be without a beneficial influence. It is the design of the wool growers and sheep breeders of Vermont, to form themselves into a "Sheep Shearing Club," for the purpose of accurately testing the relative merits of the different breeds of sheep.

☞ Mr. S. W. **Johnson**, our well-known correspondent, who has been studying agricultural chemistry for the past three years, in New-Haven, Conn., sailed for Europe on the 9th of May, in company with M. C. **Weld** of Hartford, Conn. He goes to Europe for the purpose of continuing his studies under the ablest professors of chemistry in the German universities. We anticipate for him, from his thorough devotion to this branch of science, and his sound and discriminating sense, a brilliant career of usefulness to his countrymen, when he shall have fulfilled his preparatory course of studies. Mr. **Weld** is also engaged in the same course of study, and will, we trust, be an able co-worker in the field of agricultural science—a field now almost barren of really able and educated men.

Foreign Correspondence.—Rev. J. A. **Nash**, of Amherst, Mass., author of "The Progressive Farmer," and who was recently appointed Instructor of Agriculture in Amherst College, sailed for England in the packet ship Northampton, on the 19th inst. Mr. **Nash** will spend the summer in examining into the systems of agriculture pursued in Great Britain and the continent, for the purpose of better qualifying himself for the new appointment conferred upon him by the trustees of the college; and we are gratified in being able to state that the readers of **The Country Gentleman** may expect to hear from him weekly during his absence. We anticipate a series of letters which will prove both interesting and useful to our readers.

At the last meeting of the Massachusetts Board of Agriculture, the following testimonial to Prof. J. A. **Nash**, was adopted.

Whereas, The Rev. **John A. Nash**, Professor of Theoretical and Practical Agriculture in Amherst College, and a member of this Board, is about to visit England and other countries of Europe, for the purpose of gaining information relating to the science and practice of Agriculture, this Board takes pleasure in testifying to the high personal character and the scientific attainments of Prof. **Nash**, and to his zeal in the cause to which he has devoted himself; and cordially commend him to the kind regards of the scientific and practical agriculturists, and of all agricultural associations in the countries which he is about to visit.

Ovid Academy.—We are glad to learn that this institution, which was re-organized last autumn, under a corps of teachers of high character, and with a Department for Agricultural Instruction, is now in successful operation. Arrangements have been made, by which the Agricultural Department will be sustained for a term of five years, in order to fairly test the question as to whether the demand for instruction in the science of agriculture will be such as to warrant the establishment of this branch of education in connection with the usual academical studies. The trustees have been fortunate in securing the services of Mr. **William H. Brewer**, a graduate of the late Prof. Norton's Scientific School at Yale College, as teacher and lecturer on Agricultural Chemistry, Geology, Botany, &c. Mr. B. has devoted several years to the study of agricultural chemistry, and is qualified, by his knowledge and practical good sense, for a correct and efficient instructor; and we are gratified to learn that the attendance in his department, and the progress made by the pupils, has been of the most encouraging character. Thorough instruction, such as we are confident he will impart, will do much to dispel the quackery now so rife on the subject of agricultural science, and we hope this effort to impart it, will meet with such success as to induce other academies to add this to their other studies.

The Michigan Farmer.—This paper is hereafter to be edited by R. F. **Johnston**, formerly of this city. Mr. J. has much experience, both as a farmer and a printer, and we doubt not that after he "gets his hand in," he will make a capital editor, and we bespeak for him the good offices of the friends of agricultural improvement in Michigan.

"**Consternation.**"—We learn that E. W. **Cahill**, Esq., of Dalton, Wayne county, Ohio, has recently purchased of Col. **Burnett**, of Syracuse, one of Consternation's best stallion colts, with a view to improving the stock of horses in that section of Ohio. The colt was out of a Messenger mare, and is represented to be in many respects a very remarkable one. He will be three years old in September, and promises to be fast, large and handsome. The price paid was about $500.

"Memorials of John Pitkin Norton," is the title of a handsome volume issued by the family of the late Professor Norton, for private distribution, and to whom we are indebted for a copy. It has for a frontispiece, a correct and life-like portrait of Prof. Norton, and embraces the funeral sermon occasioned by his death, preached by Rev. Dr. Porter, of Farmington, Conn., the biographical sketch published in *The New-Englander*, and the obituary notice published in *The Cultivator*, and some other papers—the whole forming a beautiful tribute to the memory of one whose early death was alike deeply deplored by personal friends and the public. The more we learn of him—of his Christian character—of his amiable, modest and unassuming deportment—of his thorough devotion to the cause he had espoused, the more deeply do we lament that one thus lovely and gifted, and so highly favored by a beneficent Providence in all the circumstances of his life, should have been taken from us at a time when his public labors, extensive and influential as they had already proved, were daily becoming more important and necessary to the progress of agricultural science. We hope an edition of this volume, or a memoir prepared for the purpose, with a selection from his writings, will, ere long, be given to the public.

Liming and Analyses.—A scientific correspondent writes, in relation to this subject:—"No doubt the analyses of soils are useful or satisfactory, though I think they have been much over-rated. If I recollect right, in Dana's Muck Manual, he sneers at the idea of *liming* land, because it is cheaper and better to apply *specific manures*. Every one to his fancy; but South Eastern Pennsylvania would have been a comparatively barren district without lime; and more especially as plaster loses much of its effect, unless the land be limed. Still I object not to chemical analysis, if we expect not too much from it."

☞ The *Working Farmer* demands an apology from us for "having given publicity to an analysis of the super-phosphate of lime under false colors," having asserted, as he says, that it was made by "Professor Johnson" of Yale College. Will "Professor" Mapes have the kindness to point out the page in *The Country Gentleman* or *The Cultivator*, where we have favored our correspondent, Mr. S. W. Johnson, with the title of Professor in Yale College? We certainly think Mr. J. more worthy of the title than many to whom that euphonious sobriquet is attached, inasmuch as he is one of the most thorough and devoted students of agricultural chemistry, that our country has produced. Farther, after pursuing a course of study with Prof. Norton, at the Laboratory of Yale College, he did honorably hold the chair of Professor of Chemistry in the State Normal School, which gives him full claim to the title. But one of Mr. Johnson's virtues is modesty; and when he saw the title of "Professor," attached to his name in an advertisement in our columns, he requested that, as its use might mislead the public, it should be removed. He also wrote to Longett & Griffing of New-York, stating that he "was not, and did not expect to be Professor in Yale College," who forwarded his statement to us. We did not, however, consider the matter of sufficient importance to allude to it. There will be sufficient time to defend Mr. Johnson, when his analyses are shown to be incorrect by better authority, and his statements disproved.

Having never "favored Yale College with a Professor not known to its faculty," we suppose we shall be allowed to continue our "agricultural labors" till some more serious, or at least truthful charge is brought against us. In the meantime, we beg leave respectfully to solicit the attention of "Prof. J. J. Mapes, L.L.D." to an article on the 53d page of the May No. of the *Penn. Farm Journal*, which, in our humble opinion, is more worthy his serious consideration than the innocent, though erroneous attachment of "Prof." to the name of our correspondent. By the way, while on the subject of titles, will Professor Mapes be pleased to inform us in what Institution he has had the honor to be a "Professor," and what Institution did itself the honor to confer upon the editor of the *Working Farmer* the degree of L.L.D.? We are not disposed to doubt that he came legitimately enough by his prefix and suffix; we only wish to know what college deserves the credit of thus distinguishing the gentleman.

New Steam Dryer.—Attention is invited to the advertisement of Mr. Bulkley, of Indiana, in this paper. The invention, if it equals the promise it affords, is an important one, and will prove of great value, especially to the corn-growers of the west, as by it the meal may, at a comparatively trifling expense, be so prepared as to secure its safe shipment to any part of the world. Mr. B. has sent us six beautiful samples of meal and hominy, which were all made at one grinding, and kiln-dried at the rate of twenty bushels per hour. The cost of the operation, Mr. B. informs us, is about two cents per bushel.

Wheat and Straw.—Boussingault gives the following, as the ordinary proportion in weight between the grain and straw, as quoted from different observers, and it may be worthy of notice in this country, where straw is becoming a valuable product, and where a crop of thirty bushels of wheat per acre, will in the same average rates, give about two tons of straw.

Thaer,	grain,	1000	straw,	2000
Podewils,	"	1000	"	2857
Berger,	"	1000	"	2292
Block,	"	1000	"	3030
Dierexen,	"	1000	"	2564
Schwertz,	"	1000	"	2272

Every farmer is aware that the character of the season has a marked influence on the relative proportion of of each, some years yielding large, well filled, heavy grain, on a small amount of straw, and others an abundance of straw, with small light heads of grain. Boussingault mentions an instance of crops grown in two consecutive years, differing most strikingly in this respect, the first (1840-1) the season was very wet; the second, (1841-2) was remarkable for extreme drouth, both presenting extraordiary extremes. In these two years, the weight of the grain to the straw was,

1840-1, 1000 grain to 4162 straw.
1841-2, 1000 " to 1116 "

Connecticut Valley Farmer and Mechanic.—We have received Nos. 1 and 2, of a monthly journal with this title, established at Springfield, (Mass.) by S. Bowles & Son, and edited by Wm. B. Calhoun, Esq., a gentleman, we infer from the Nos. before us, well qualified for the task. We have not seen a new paper for a long time, that pleased us as well as this. We refer to another page for a very interesting article on the "Flax Culture and Manufacture," copied from this paper.

The Southern Agriculturist was commenced at Laurensville, S. C., at the beginning of the present year, under the editorial management of our old friend Col. A. G. Summer, and his brother Wm. Summer, one of the best horticulturists of that State. It is ably and judiciously edited, and we hope it will receive the large support it so richly deserves. R. M. Stokes publisher—monthly at $1 a year.

The Kentucky Cultivator is published monthly, at Covington, by John Atkinson, at $1. With the No. for June, it entered upon its second year.

The Iowa Farmer and Horticulturist has made its appearance at Burlington. It is a dollar monthly, and is edited by J. W. Grimes and J. F. Tallant. It is worthy of a large circulation, and if properly supported, and cannot fail of accomplishing much for the benefit of this new and flourishing agricultural State. If it shall accomplish its mission as successfully as has the *Prarie Farmer* at Chicago, its editors and proprietors will richly deserve the gratitude of their countrymen. [In relation to the error which it points out in the 17th No. of the Country Gentleman, it is proper to say that it occurred in the "News Items," and was cut from a New-York paper, and not seen by us until this notice called our attention to it. The sentence should, probably, have read—"Carbonic acid gas of sufficient strength to extinguish a lamp placed on the floor, was discovered."]

☞ The report from Washington now is, that D. J. BROWNE of New-York, is appointed Agricultural Clerk in the Patent Office, instead of W. S. King, as heretofore stated. Mr. B. is the author or compiler of several works, and has for years past given much attention to agriculture, having been, we believe, for some years, one of the editors of the American Agriculturist.

COL. SHERWOOD'S CATTLE SALE.—The sale of Col. Sherwood's Improved Durhams, took place, agreeably to advertisement, at his beautiful residence at Auburn, on the 8th of June—Col. J. M. Miller of New-York, officiating as auctioneer, who performed his functions in his usual satisfactory manner. There was a large attendance of gentlemen from different and distant parts of the Union, who, as is evinced by the results of the sale, came to purchase. The prices, it will be seen, range higher than at any previous sale ever held in the State. The sales were as follows:

	COWS AND HEIFERS.	
1.	Pansey 3d, 7 years, J. G. Brasee, Lancaster, O.,...	$450
2.	Pansey 4th, 3 years, P. Lorillard, Westchester Co,	525
3.	Phantom, 6 years, J. J. West, Illinois,.	210
4.	Phantom 2d, 3 years, A. Clemens, Philadelphia,...	300
5.	Phantom 3d, calf, S. Bush, Sullivan Co., N. Y.,...	150
6.	Ozema, 5 years, J. G. Brasee,..........................	240
7.	Ozema 2d, calf, J. W. Titus, Dutchess Co., N. Y.,	165
8.	La Polka, 5 years, do do	215
9.	La Polka 2d, calf, do do	170
10.	Poppey, 7 years, do do	215
11.	Poppey 2d, 3 years, S. Bush,..........................	295
12.	Nightshade, 7 years, A. Clemens,..................	260
13.	Pet, 6 years, J. W. Titus,..............................	310
14.	Pet 2d, 3 years, Wm. Kelley, Rhinebeck, N. Y., ..	400
15.	Pet 3d, calf, John Foster, Canada West,..........	300
16.	Nymph, 9 years, W. S. Ward, Westchester,.	220
17.	Topsey, 1 year, J. G. Brasee,........................	160
18.	Sarah, 2 years, H. Fellows, Sennett, N. Y.,.	125
	BULLS.	
1.	Vane Tempest, imported, 3 years, J. P. Robinson, Wisconsin, ...	1,070
2.	LaFayette, 1 year, J P. Robinson, Wisconsin,....	310
3.	Gen. Putnam, 2 years, J. J. West, Illinois.........	300
4.	Powhattan, calf, H. Baily, Westchester, N. Y.,...	310
5.	Novelty, calf, J. P. Robinson,........................	215
6.	Petrarch, calf, J. G. Brasee, ...	400
7.	Pope, calf, J. P. Robinson,............................	230
8.	Dragon, 2 years, A. Beach, White Plains, N. Y.,..	130
9.	Dandy, 1 year, J. P. Bobinson,........................	170
10.	Irishman, calf, A. Beach, New-Jersey,...........	135
11.	Locofoco, calf, do do	90
	TOTAL.	
	8 cows, average $265 each,........	2,120
	10 heifers and calves, average $261,................	2,610
	11 bulls and bull calves, average $305,45,......	3,350
		$8,080

GUANO AND POUDRETTE.—In an intererresting article on the "Manure Trade of New-York," in the last *Agricultor*, the following estimates of the sales of these two articles, is given. Of guano, it says—"We have ascertained from Theodore W. Riley, agent of the Peruvian government for this city, that the sales of guano in the year 1852 were, to go to Philadelphia, 2,671 tons; to go to Delware, 680 tons; to New-Jersey, 112 tons; to Long Island, 3,134 tons; to Connecticut, 119 tons; to Boston, 151 tons; to New-York city buyers, mostly to the retail dealers, 1,720 tons —making 8,587 tons to Northern farmers. The sales to Boston, Connecticut, and New-Jersey, will be much increased this year. The sales both from here and Baltimore, to be used south of Delaware, are much greater than for use at the North. Long Island appears to be ahead of all Northern sections in the use of this great fertilizer. A considerable portion of that set down to New-York buyers goes to the island."

After describing the establishment of the *Lodi Company Poudrette Manufactory*, it says—"The poudrette is put up in barrels, averaging four bushels each, which are sold at $1.50 each, in New-York. The sales at the office, 74 Cortland-street, last year, amounted to 7,127 whole and 50 half barrels. At the factory, 12,000 bushels in bulk, principally to Jersey farmers, in Essex co., at 25 cents a bushel. This will make a total of 10,157 barrels, which includes considerably more than half of all the ta-feu made by the million of people in and around this city, which ever finds its way back to the soil from whence it came. The sales of 1853 will be considerably increased, as the facilities of manufacture have been very much increased this year, till the factory is capable of using all the material that can be obtained, as much the largest portion goes into the sewers, or is dumped off the docks into the river.

TERRA-CULTURE.—I am an old farmer, and commend you for your efforts to improve the state of agriculture in our country. I think you deserve some credit also for your notice and remarks about modern terra-culture, which has attracted a degree of attention in some localities of the State, and for aught I know is still rising in the world. Having had the benefit of one or two lectures on this subject, I feel constrained to say my practice upon it has not resulted in the increased profit and enlarged growth I was led to expect from it. Indeed, the way my crops turned out *shallow* last year, was a pretty good caution to agricultors in general, and terra-culturists in particular. But I may get a benefit for my two lectures after all, for by them, together with my late practice, I shall be induced to go rather deeper into the art and mystery of terra-culture, than I have heretofore done. H. L. D. *Moreau, N. Y.*

RED CEDAR FOR HEDGES.—In your paper of May 12th, I noticed an article from the "Rural New-Yorker," recommending the Red Cedar for farm hedges. The fact that the cedar is perfectly hardy, adapts itself readily to any soil, and is very long lived, as well as highly ornamental, strongly favors its use as a hedge. But I have observed in planting the cedar or other evergreens, in places where cattle have access, a propensity the cattle seem to have, for attacking the trees with their horns, plunging into, and tearing them in such a manner as to destroy, in a very short time, fine vigorous trees of from six to eight feet in height. I wish to inquire through your paper, if others have noticed this difficulty, and if so, in what way it may most easily be overcome. Will some one who has had experience in the matter, reply? FRANK LINDEN. *Near Buffalo, N. Y., May* 18, 1853.

NOTES.—I too have used grafting wax made with oil for two years past, and wondered why I lost a greater number of grafts than heretofore, when using a different compound. From what has of late been said thro' your columns in regard to this matter, I am inclined to the opinion, that the oil, as stated by your correspondent, is injurious.

In regard to the Yam Potato, I would endorse all that is said of them by Messrs. Thorburn & Co. I have raised them for three years past, and find them more hardy and productive than any potato I have yet found, and are of good quality for the table. The last year's crop was the best I have yet raised.

I have kept the Dorking fowls for several years. and find them excellent in every respect. My stock was obtained from the importations of the well known F. Rotch, Esq., of Morris, N. Y., which is a sufficient guarantee of its purity and excellence. D. D. DEVOE.

BURLINGTON COUNTY, N. J.—We give the following extract from one of our subscribers in this county:—"There is a deep interest felt in improved agriculture in this county, (Burlington,) and if every farmer had the Cultivator in his family, for himself, his sons and workmen, to become acquainted with the great amount of information there contained, we should soon be in advance of all others not embracing this means of improvement. We have had excellent exhibitions at Mt. Holly, but heretofore our members and the distribution of premiums have been restricted to this county; at the last quarterly meeting, that restriction was removed from the constitution of the society. By this change, persons from any county in our State or Union, by associating with the society, may contribute to our annual fairs, and compete for the various premiums; the object being to bring forth the finest productions, and Burlington county has determined not to be beaten."

Yield of Corn.—Being absent when your paper first arrived, it was not until to-day, that I observed the omission to mention the number of bushels of corn per acre, in the second article of No. 18 of the Country Gentleman. It is from 55 to 60 bushels shelled, on fields of 8 to 10 acres; and in one instance, but a fraction less than 65 bushels, where the ground was thoroughly underdrained. C. *Lansing, May* 7, 1853.

Corn for Fodder.—In perusing one of your late numbers, I saw an article on this subject. Now the question naturally arises which is the most profitable kind to sow for this purpose. I have raised several crops with good success, from our eight-rowed yellow; but having spent some three years among the corn growers of Ohio, it occurred to me that the Ohio corn would be just the thing for us to sow for fodder. About the first of June, 1852, I plowed about one-fourth of an acre of ground. I then procured half a bushel of Ohio corn, and sowed it on half of the above named ground, and sowed the balance to the same quantity of our eight-rowed yellow. And now the contrast. The yellow grew well; but compared with the Ohio, it was small. In the ground where the Ohio was sowed, stood a row of Plum trees—the highest one was between 11 and 12 feet; and by the 15th of September, not a particle of them could be seen. The corn was cut and fed to my cows, and kept green until severe frost. Is not the Ohio corn the most profitable to sow for fodder? T. S. M. *Westmoreland, Oneida Co., N. Y.*

Answers to Inquiries.

Stones for Drains—In some of my fields are wet spots of an acre or two, which I am anxious to drain, but there is no tile in this region of country, and as timber is too valuable to be used in that way, I am at a loss how to go at it. The land is undulating, affording a pretty good fall to carry the water off, and there is plenty of stone at hand. Now how would it do to make "blind ditches" of stone; what depth and width should the ditches be; what the best mode of cutting them, and how near together; how deep the filling of stone in the ditches, and what size should the stone be used? G. *Bardstown, Ky.*

Tiles form the most perfect drains in all kinds of soils, but in all others, except those partaking of the nature of quick-sands, stone may be substituted. Tile drains are the most easily constructed, but as stone cost nothing in most cases, they compensate in part for the increase of labor in making them.

The mode of construction must vary with the nature of the soil. They are most easily and safely made in clayey land, which is so adhesive that little difficulty ever occurs by the earth falling in among the stones. On such soils, the stones may be filled in so as to reach within a foot or so of the surface. But on sandy soils, possessing little tenacity, and where there is great danger of the earth "caving in" among the stones, eighteen inches or two feet of earth should be placed above, and every precaution used to prevent the disaster just spoken of; such as a layer of very small or flat stones on the top, or a layer of clean gravel; and in addition to this, we have formed a covering of slabs (of some durable wood) placed on the stones, barely sufficient to preserve the earth in its place, before the coating of straw or inverted turf is applied.

If the quantity of water to be drawn off is quite small, a promiscuous filling in of small stones, will afford sufficient drainage; but when it is large, a special channel must be made for the current. This is accomplished by depositing a row of stones on each side of the bottom, so as to leave a channel in the center some two or three inches wide, and the same in height. This is covered with broad or flat stones, and the rest then filled in promiscuously. If the bottom of the ditch is of soft sand, it will be necessary to lay a harder foundation in the first place, of flat stones, or of durable slabs or boards—the same care will be needed if the descent is rapid, so as to endanger it by washing the bottom earth.

The depth of the ditching should not be less than two and a half feet; three feet would be better; and where the whole surface needs draining, they should not be more remote from each other than thirty feet, unless the soil is gravelly; in which case forty feet will answer. A width of ten or twelve inches at the bottom will be necessary to admit of laying the stone channels properly. If the stone should not be more than two or three inches in diameter, they will be better than larger, affording more numerous interstices, and lessening the danger of becoming choked. No stones larger than five or six inches in diameter should ever be put in under any circumstances.

Time to Sow Plaster.—I see that one of your correspondents asks the best time to sow plaster on meadows or pasture, and wheat. I have been greatly benefitted by the use of plaster for the last thirty-five years, and on different kinds of soil, in different towns and counties. I have found it most effectual on sandy and gravelly soils—sandy loam nearly as good—less on clay soils. The best time of using, after long experience, is, from the middle of April to middle of May—best sowed every spring, one bushel per acre, or two bushels once in two years, to save labor. For wheat, roll the seed before sowing. Plaster corn when first up. Drop it in the hill with potatoes, and when beginning to set. A. K. Barrett. *Magnolia, Rock co., Wis.*

Guano and Bone-dust.—In answer to L. H., who inquires for information relative to the application of these manures, we would refer him to page 52, 2d column, and page 131, 3d column, of the Country Gentleman; and page 87 current volume of the Cultivator. One hundred pounds of Peruvian guano are thought by chemists to be worth about one two-horse load of stable manure, provided the guano is applied in the best manner; that is, one load of stable manure is about equal in value, to one dollar and a half in guano. Experience, in most cases, gives nearly the same results, and our correspondent can infer from this which will be the cheapest. Bone dust dissolved by sulphuric acid, and thus converted to a super-phosphate, is nearly or about as powerful as guano, better for some crops and not so good for others, and may be applied in the same way. Undissolved dust will vary in effect with its fineness, but it is not so powerful by several times, as the super-phosphate.

G. S. M'C., *Brockville, C. W.*—For Devon Cattle, see advertisement of the Messrs. Wainwright, published in the recent numbers of this paper. We know of no new Oxfordshire or Improved Cotswold Sheep for sale in this vicinity.

What is the best work on flowers, plants and shrubs—their propagation, management, &c. D. D. D.

The "Companion to the Flower Garden," by Mrs. Loudon, edited by A. J. Downing.

The Water Ram.—I saw in your last paper, a request for information concerning the Hydraulic Ram? I have had one in operation two years next July, and am perfectly satisfied. We bring the water one hundred and thirty-six rods, and elevate it one hundred and thirty-five feet, with thirteen feet fall. It discharges a gallon in three minutes. The drive pipe is forty feet long, one and a half inch bore—the small pipe half inch. The Ram is No. 5, and the cost about $15. The most expense is the pipe. It goes from fall until spring without stopping once, and all that ever stops it is when leaves get into the spring and turn off the water; but this you will perceive is no fault of the machine; the spring is in the woods. The whole cost of ours was two hundred dollars. HENRY S. BURT. *Norway, N.Y.*

DORKINGS.—Observing in the last number of your valuable journal, an inquiry for pure bred Dorking fowls, I will say they can be procured of Dr. EBEN WIGHT, of Dedham, Mass., and also of Prof. JONATHAN RAMSEY, of Middletown, Conn., who has some pearl white, recently imported, and fine bred birds. F. I. *Hartford, May* 18, 1853.

Information Wanted.

STRAWBERRY BEDS DESTROYED.—I have a large strawberry bed in my garden, that has, during the two past years, been nearly destroyed by the ravages of a small worm of the slug species. Its first appearance, (about the first week in July,) is upon the leaves, upon which it remains until the whole life is eaten out; and in August last, my whole bed looked as though fire had passed over it. The worm is of a brownish color, and has not the glutinous appearance appertaining to the cherry tree slug. I have seen many beds in this vicinity affected by the same cause. Snuff, ashes, soap-water, &c., have been used to no purpose.

If you, through your valuable journal, can inform us of a remedy, either to be applied now, or at the time of the first appearance of the worm, you will confer great obligation upon many, together with your obedient servant, SHEPHERD WATSON. *Lowell, Mass.*

APPLICATION OF MANURE.—There is one question which I would like to have answered—Which is the best way of applying manure? After all that has been said and done on this matter, I am unable to find it out yet. Scarcely any two farmers practice the same method. Are their various modes all equally good? H. L. D.

SNAP DRAGON.—I would be under many obligations to you or to any subscribers of the C. G., if you or they would give us the most effectual means of removing a very troublesome weed, called by some Snap Dragon, Jacob's ladder, and various other names. A SUBSCRIBER. *Schaghticoke, May* 27, 1853.

DAY AND MARTIN'S BLACKING.—Can you or any of your subscribers give the receipt for Day & Martin's liquid blacking? It has been published within a few years, in one of the scientific journals of the day, but I forget which. It would, no doubt, be acceptable to many of your readers beside D. F. *Long Island, May* 23, 1853.

WHALE OIL SOAP.—May I inquire through your paper of what materials whale oil soap is composed, and how manufactured. D. D. D. *Ilion, May* 14, 1853.

List of States Fairs for 1853.

Vermont,	Montpelier,	Sept'ber,	13, 14, 15.
Kentucky.	Lexington,	"	13, 14, 15, 16, 17
New-York,	Saratoga,	"	20, 21, 22, 23.
Ohio,	Dayton,	"	20, 21, 22, 23.
Pennsylvania,	Pittsburgh,	"	27, 28, 29, 30.
Michigan,	Detroit,	"	28, 29, 30.
Wisconsin,	Watertown,	October,	4, 5, 6, 7.
Indiana,	Lafayette,	"	11, 12, 14.
Virginia,	Richmond,	Nov'ber,	1, 2, 3.

AMERICAN INSTITUTE.—At the recent annual meeting of this Association, the following officers were elected for the present year:—

President—JAMES TALLMADGE.

Vice Presidents—Robert Lovett, Robert L. Pell, D. M. Reese.

Cor. Sec'y and Agent—Adoniram Chandler.

Recording Sec'y—Henry Meigs.

Treasurer—Edward T. Backhouse.

PUTNAM COUNTY AG. SOCIETY.—We have received the List of Premiums to be awarded by this Society at its next Fair, which is to be held at Carmel, on the 4th and 5th of Oct. T. B. ARDEN, Philipstown, Prest.—G. M. BELDEN, Carmel, Secretary.

WOOL MARKET.

New-York, June 17.—A few hundred bales of the new clip of wool, mostly from neighboring districts in New-Jersey and this State, have arrived, and of these a few parcels have been sold. We note an easier feeling in the market, and prices have given away about 5c per pound since the new clip has been coming forward. The sales are very light of either new or old clip, as manufacturers are mostly looking unto the interior market for their supplies. By going to the wool grower they have to give higher prices than by waiting till wool comes forward to the Atlantic markets. The sales have been about 30,000 lbs. domestic fleece, at 45a60c. The parcels of New wool brought 47a53c; the latter for half-blooded Merino. There is a fair demand for, and supply of pulled wool. We notice one large sale on Wednesday of 40,000 lbs: on p. t., and about 60,000 lbs in lots during the week, at 55c for extra country pulled, 50c for super, and 45c for No. 1.

Syracuse, June 16.—The prices now offered for wool are full ten cents higher per pound than last year. We quote as follows: Common grades 35 to 40 cents, ¾ and full blood, 45 to 50 cents.

SALE OF WOOL.—We learn that Messrs. J. M. Ashbrook and James T. Church, of Pleasant Township, recently clipped 1,425 sheep, yielding some 4,275 lbs. They sell 1,100 fleece at 55c per lb., and the balance for 50c. Wool is now rating at high figures, and no fears are entertained, we believe, of a decline in the price.—Lancaster (O.) Gazette.

Atkins' Self-Raking Reaper.

THIS machine is now offered to the public and warranted to be a good self-raking reaper. It is also believed to be a good mower, but not yet having been sufficiently tested in grass (though it soon will be) it is not warranted to be equal to a machine made mainly or wholly to mow.

The raking apparatus is of novel and very simple construction, and not liable to derangement, and every farmer who has seen it in the harvest field, says it performs the raking better than a man can possibly do it.

Price of machines at Chicago, $175, of which $75 must be paid on giving the order, $50 upon successful trial, and $50 in note payable 1st December.

The machines are most thoroughly built and warranted.

☞ Descriptive circulars, with cuts, sent to post-paid applications. J. S. WRIGHT.
"Prairie Farmer" Warehouse Chicago.
June, 1853—25—w12t.

Harvest Implements.

MOWING AND REAPING Machines of different patterns, and of the best kinds in market.

Scythes, Snaths, Cradles, and large Hand Rakes, made expressly for raking after the cart; also Horse Hay Rakes.

Pitchforks, very superior, of elastic steel.

Threshing Machines and Fan Mills, combined or single.

Horse Powers of the most approved kinds, such as the Endless-chain or Railway, Circular, Cast Iron, &c.

Ruta Baga, Turnep, Cabbage, and all other sorts of Field and Garden Seeds. R. L. ALLEN,
189 & 191 Water-st., New-York.
May 19—w—20, 23, 26; 29—m2t

Bulkley's Patent Dry-Kilns, for Grain, Flour, Meal and Lumber.

RIGHTS, to use these dryers, for sale in any town or State in the Union. These machines kiln dry by steam heated when necessary to 600 or 700 deg., and combining cheapness, compactness, safety and speed. They are built at less expense, occupy less room, take less fuel and power, less danger of fire, and are less liable to get out of repair, as well as capable of doing more work, and in a better manner than any other dryer. May be built portable or stationary.

A portable machine now in use in this place, which is 8 ft. long, 5 ft. high, and 1½ ft. wide, is drying meal at the rate of 650 bls. per day, and cost to build, $130. Larger sizes, and stationary machines cost less in proportion.

The sap from inch lumber may be removed in from 24 to 48 hours, by using the steam at 500 deg. Cost of machine to kiln-dry 2500 ft. per day, $30 to $40, including the cars to pass the lumber in and out of the dryer. May be built of any size. On a late trial, 1200 lbs of water were removed from 1000 ft. of lumber in 13 hours. Steam seasoning at 500 deg., increases the strength of lumber two-fifths to five-ninths, and it will then take a higher polish. See description in Scientific American, July 3, 1847, and March 26, 1853.

Address H. G. BULKLEY, or Hon. H. L. ELLSWORTH, LaFayette, Indiana.—May 26—w2t—m1t*

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y. Braintree, Mass.

THE WATER-CURE JOURNAL.—A New Volume.—Now is the time to subscribe.—Published monthly, in a beautiful quarto. Illustrated with engravings, exhibiting the Structure, Anatomy, and Physiology of the Human Body, with familiar instructions to learners. It is emphatically a Journal of Health, designed to be a complete Family Guide in all diseases.

TERMS—Only One Dollar a year, in advance. Address, post-paid, FOWLERS AND WELLS, Clinton Hall, No. 131 Nassau-street, New-York.

"The Water-Cure Journal holds a high rank in the science of health; always ready, straightforward and plain-spoken, it unfolds the laws of our physical nature without any pretensions to the technicalities of science; but in a form as attractive and refreshing as the sparkling element of which it treats."—*New-York Tribune.*—22—w3t—m1t.

THE ILLUSTRATED AMERICAN PHRENOLOGICAL JOURNAL. Devoted to Phrenology, Physiology, Mechanism, Education, Agriculture, the Natural Sciences, and General Intelligence, profusely illustrated with Engravings. Every family, and especially all young men and women, should have a copy. Published monthly at One Dollar a year. All letters should be post-paid, and directed to FOWLERS AND WELLS,
Clinton Hall, No. 131 Nassau-st., New-York.

Young men about launching forth upon the activities of life, and anxious to start right, and understand their course, will find this JOURNAL a friend and monitor, to encourage them in virtue, shield them from vice, and to prepare them for usefulness and success in life. The various occupations will be discussed in the light of Phrenology and Physiology, so that every one may know in what pursuit he would be most likely to succeed.—PUBLISHERS.—22—3t—m1t.

Suffolk Pigs.

FOR SALE, 20 pairs of full blood Suffolk Pigs, by
C. J. HOLDEN.
Walpole, N. H., May 26, 1853.—m4t

Gifford Morgan Colts.

I HAVE two Stallion Colts, both by *Old Gifford Morgan*, viz: One a year old the 18th of July next, a dapple chesnut color—dam by the Genl. Hibard—grand dam by Bullrush. The second three years old 30th of April—color mahogany bay—dam by Green Mountain Morgan, from a Messenger mare. He is a brother to Morgan Chief, owned by Ackley & Gilbert of East Hamilton, N. Y. Both very perfect colts. I will sell either of them. C. BLODGETT.
Waterbury, Vt., May 27.—22—1t—m1t.

Devon Bull Red Rover for sale.

RED ROVER is a full blooded North Devon Bull, bred by Geo. Patterson of Maryland; was sired by his superior imported bull Eclipse. His dam was "Venus," an imported cow of Geo. Patterson's, sired by Lord Leicester's bull Anchisis. Red Rover was calved June 28th, 1844, and has taken the following premiums:

The 1st premium at Poughkeepsie, as the best bull calf.
The 1st " at the American Institute the same year,
The 1st " as the best 1 yr. old, 2 yr. old, 3 yr. old.
The 1st " at the N. Y. State fair in 1847.
The 1st " at the Hartford Co show in 1848.

THOMAS GOULD,
July 1—m3t. Aurora, Cayuga Co., N. Y.

Fancy Lop-Eared Rabbits.

I HAVE now about ready for delivery, a few pairs of fine English *Fancy Lop-eared Rabbits*, from stock imported by me directly from London and Dublin. Gentlemen, or amateurs, desirous of obtaining fine young stock purely bred, can address GEO. P. BURNHAM,
June, 1853—w3t—m3t. Box 22, P. O., Boston, Mass.

Super-phosphate of Lime.

THE most approved brands, also Bone Dust, Guano, Potash Scrapings, Poudrette and Plaster. For sale by
LONGETT & GRIFFING,
April 21—16—6t No. 25 Cliff-street, New-York,

Books for the Country,

Sent Free of Postage.

C. M. SAXTON, AGRICULTURAL BOOK PUBLISHER, 152 FULTON-STREET, New-York, publishes the following VALUABLE WORKS:—

1.	The Complete Farmer and Rural Econimist and New American Gardener—by T. J. Fessenden, 2 vols. in 1, about 700 pages, cloth gilt,	$1 25
2.	Johnston's Agricultural Chemistry—a new edition, 1 vol 12mo., cloth gilt,	1 25
3	Johnston's Elements of Agricultural Chemistry,	1 25
4.	Johnston's Practical Agriculture—1 vol. cloth,	75
	do. do. do. do. paper,	50
5.	Buist's Family Kitchen Gardener—cloth.	75
6.	Hoare's Treatise on the Cultivation of the Grape Vine on open walls. 50 cents. Paper,	40
7.	Sheep Husbandry—By H. S. Randall,	1 25
8.	Stephens' Book of the Farm—complete,	4 00
9.	Brown's American Poultry Yard—tenth edition,	1 00
	do. do. do. do. Mail edition,	75
10.	Allen's American Farm Book—1 vol. $1. Paper,	75
11.	Allen's Diseases of Domestic Animals—1 v. 75c. paper,	50
12.	Chemistry Made Easy for Farmers—paper,	25
13.	Browne's American Field Book of Manures,	1 00
14.	Dana's Prize Essay on Manures,	25
15.	Miner's American Bee-Keeper's Manual,	1 00
16.	Brown's American Bird Fancier,	25
17.	The American Architect—the cheapest and best work of the kind published in the world, 2 vols. in 1, bound,	6 00
18.	Youatt and Martin's Treatise on Cattle—with 100 illustrations. Edited by Ambrose Stevens, Esq.,	1 25
19.	Youatt on the Breed and Management of Sheep—with illustrations,	75
20.	Youatt on the Pig,	60
21.	Richardson on the Hog,	25
22	Youatt on the Horse,	1 25
23.	Richardson on the Horse,	25
24.	Richardson on the Cow,	25
25.	The American Rose Culturist,	25
26.	Allen's Rural Architecture,	1 25
27.	Allen's Treatise on the Culture of the Grape,	1 00
28.	Townley on the Honey Bee,	50
29.	The Hive and the Honey Bee—by Richardson,	25
30.	The Bee-Keeper's Chart—by Phelps,	25
31.	Dadd's American Cattle Doctor,	1 00
32.	The Shepherd's Own Book—by Youatt, Skinner and Randal,	2 00
33.	Gunn's Domestic Medicine—155th edition,	3 00
34.	Lindley's Guide to the Orchard,	1 25
35.	Thomas's American Fruit Culturist,	1 25
36.	Saxton's Rural Hand Books, 2 vols.,	2 50
37.	The American Florist's Guide,	75
38.	Fessenden's Complete Farmer,	75
39.	Fessenden's American Gardener,	75
40.	Richardson's Pests of the Farm,	25
41.	Elements of Agriculture—edited by Skinner,	25
42	Nash's Progressive Farmer,	50
43.	Blake's Farmer at Home,	1 25
44.	Every Lady her own Flower Gardener,	25
45.	American Kitchen Gardener,	25
46.	Domestic Fowls,	25
47.	History of Silk, Cotton, Linen and Wool,	2 50
48.	Cottage and Farm Bee-Keeper,	50
49.	Quinby's Mysteries of Bee-Keeping—*in press.*	1 00
50.	Parks and Garden—by Smith and Allen—*in press,*	1 25

C M. SAXTON,
July 1—c1t 152 Fulton street, New York.

Merino Sheep For Sale.

THE subscriber would again call the attention of wool growers to his superior flock of Merino Sheep, which he still continues to breed with care, and without regard to expense where an improvement can be made.

I have now on hand a lot of pure Spanish Merino ewes A few bucks and ewes, a cross of Spanish and French Merino; and a lot of bucks and ewes, one and two years old, bred from an Atwood buck and the above mentioned ewes. The above mentioned sheep will be sold on reasonable terms.

I have also on hand a lot ewes, one and two years old, which are grade Merino, produced by careful crossing with the best Merino bucks for the last 14 years. These sheep will be sold cheap.

For the benefit of those coming from the West, I would say, there is a daily stage leaves Amsterdam for this place at 2 o'clock, or on the arrival of the afternoon train from the West. A. H. AVERY.
Galway, Saratoga co., N. Y., June 14, 1853.—w&m1t*.

Albany Tile Works,

Corner Patroon and Knox Streets, Albany, N. Y.

DRAIN TILE of the following descriptions and prices, suitable for land drainage, always on hand, in large or small quantities, of the first quality, delivered at the Docks and Railroad Depots free of cartage.

Horse Shoe Tile.

4½ inch calibre, $18 per 1000 feet.
3½ " " $15 "
2½ " " $12 "

Sole Tile or Pipe.

3 inches calibre, $18 per 1000 feet.
2 " " $12 "

Horse Shoe Hand Tile, 8 inches calibre, for drains around dwellings, at $8 per 100 feet. Sole Tile, 4 inch calibre, for sink drains, at $4 per 100 feet—9 and 6 inch square, polished face Floor Tile, less than one-fourth the cost of marble, for basement floors and cellar pavements—9 and 6 inch square Bakers' Tile, for oven bottoms. Orders from a distance will receive prompt attention. A. S. BABCOCK.

Albany, April 14, 1853—16—13t—c6m.

Important to Wool Growers.

THE subscriber offers to sell Twenty-five pure SPANISH MERINO EWES, and Twenty LAMBS—also Twenty-five lambs bred from Spanish Ewes and a French Buck. The above sheep were not raised from stock that have been peddled for pure bred sheep, but were selected personally, by one of the best farmers of this county, from some of the best flocks in Vermont. Any one wishing to commence a good flock of sheep, will find a rare opportunity, as they will be sold at fair prices.

For any information wanted, address the subscriber at Otisco, Onondaga Co., N. Y. N. H. NOYES.

June 1—21—w2t—m2t.

Just Published,

STOCKHARDT'S CHEMICAL FIELD LECTURES—For Agriculturists. Edited, with notes, by James E. Teschmacher.

Opinion of Samuel L. Dana, M.D. L.L. D.

The great and striking feature of this little book is, that written by an eminently practical teacher for a class of farmers whose good opinion of the value of science to agriculture was to be won, their experience has been placed above scientific conjecture, and their practical knowledge has been made the point of scientific illustration. Hence the work is more simple and intelligible than any other chemico-agricultural work which has yet appeared.

Devoted chiefly to the practical consideration and money value of manures, its views of vegetable physiology are at once comprehensive, transparent as water, and illuminated by style so bewitchingly simple and concise, that the reader, familiar though he may be with the subject, feels that he is carried onward under the guidance of a master spirit, and as he passes the old land-marks, sees them shining with a new light.

The book has yet to be written whose chapters on artifical manures shall equal Stockhardt's Field Lectures on bone and guano, and certainly no work has yet appeared, which has shed a clearer or milder light on the intimate connection between science and agriculture.

In truth, the great recommendation of this work is, that it is adapted equally to a class of readers who have yet to learn their A B C in agricultural chemistry, and to that other class whose diffusive reading, here finds itself compressed not less neatly than usefully. With regard truly yours,

John Bartlett. S. L. DANA.

Just issued, the Sixth Thousand of Stockhardt's Principles of Chemistry.

For Sale—a few sets of Apparatus in a portable form, prepared in Germany, and designed for the student, with or without the aid of a teacher. JOHN BARTLETT,

March 24—12—1t—e.o.m3t. Cambridge.

Manures.

PERUVIAN GUANO, 2¼ to 2½ cents per pound.

BONE DUST, when taken in equal quantities, $2.25 per barrel.

BONE SAWINGS, separately, $2.50 per barrel.

PLASTER, $1 to $1.25 per barrel.

POTASH, 3½ to 4 cents per pound.

CHARCOAL, $1 per barrel.

SULPHURIC ACID. 2¼ to 2½ cents per pound.

SUPERPHOSPHATE OF LIME, 2¼ cents per pound.

WOOD'S RENOVATING SALTS, one cent per pound.

For sale at the State Agricultural Warehouse, No. 25 Cliff-street, New-York. LONGETT & GRIFFING.

Feb. 1—ctf.

United States Agricultural Warehouseand Seedstore

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine—also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, arm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers. Jan 1, 1853—m&wtf

---

To Flax Growers.

THE subscriber has invented and builds to order, a FLAX MACHINE, which, attended by two hands, is guaranteed to dress from three hundred to four hundred and fifty pounds of flax per day. The saving in labor and tow, by comparison, is considered equivalent to the cost of dressing flax by the best common machinery, used in this country and Europe. The new machine is made with care, to secure strength and durability, and can be run at a speed which requires more than two hands to attend it. Unrotted flax straw can be dressed by it. It can be driven by horse power or otherwise; and, being portable, can be sent any distance. For the present, the price of the machine complete, is $400. Those who wish to obtain it in season to begin operations next autumn, will do well to apply soon.

S. A. CLEMENS.

Springfield, Mass., March 9, 1853.—mtf.

India-Rubber Gloves for Gardening,

HOUSE-CLEANING, driving, or any out-of-door work that soils the hands. They are made all lengths, to protect the rists and arms from exposure, and by wearing, make the hands soft and white. Ladies' Bleaching Mitts may be worn while sewing or sleeping. Ladies' Dress Protectors, to prevent the soiling of dresses by perspiration under the arms.

For sale by Bowen & McNamee, New-York; Norcross & Towne, Boston; Wilcox, Billings & Co., Philadelphia; Falconer & Haskill, Baltimore; H. W. Shiffer, Charleston; Gill & Brother, St. Louis; Bart & Hickcox, Cincinnati; and by all Rubber dealers in the Union.

Sold at retail by country merchants generally.

April 12—m3t.*

Grey Chittagong Fowls.

PURE blooded Chittagong Fowls and Eggs for sale, by W. BARNES, Bristol, Conn.

April 6—m3t*

Books for Farmers.

THE Farmer's Encyclopedia and Dictionary of Rural Affairs, embracing all the most recent discoveries in Agricultural Chemistry, by Cuthbert W. Johnson, Esq. Adapted to the United States by Goveneur Emerson. One large vol., with plates—$4.00.

The Progressive Farmer—A Scientific Treatise on Agricultural Chemistry, &c., applied to Practical Agriculture, by J. A. Nash—50 cents.

The American Farm Book, or Compend of American Agriculture, by R. L. Allen—$1.00.

The American Muck Book, treating of all the principal fertilizers and manures in common use, with specific directions for their preparation, preservation and application to the soil and to crops, by D. J. Browne—$1.00.

The Farmer's Dictionary—A vocabulary of the technical terms recently introduced into Agriculture and Horticulture, and also a compendium of Practical Agriculture, by D. P. Gardner, M. D.—$1.50.

Norton's Elements of Scientific Agriculture—50 cents.

The Farmer's Manual—A Practical Treatise on the Nature and Value of Manures, by F. Falkner, Esq.—50 cents.

Johnston's Agricultural Chemistry—$1.25.

For Sale at the office of the Cultivator, 395 Broadway.

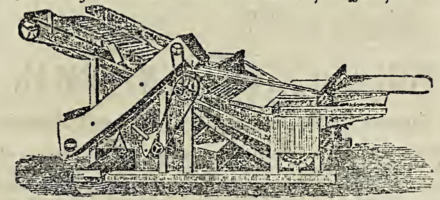
A Virginia Farm For Sale.

PLEASANTLY situated in Fairfax county, 13 miles from Alexandria, 16 miles from Washington, and about 1½ miles from Lee station, on the Alexandria and Orange railroad, a farm of 218 acres, about one-half intervale or bottom land, the residue a gentle swell of upland. It is admirably adapted to grazing, and is well watered with two small streams of never failing water, and is capable of producing excellent crops of corn, wheat, potatoes, grass, &c. The location is healthy, and the markets as good as any in this country. On the premises is a young and thrifty orchard of 125 apple trees, 25 peach trees, pear, cherry trees, &c. Also a timber lot of 20 acres, (hard-wood,) and 50 acres second growth pine, which will yield 40 cords per acre, worth $2 per cord at the railroad, 1½ miles distant. There is a small dwelling house and other buildings on the farm The fences are tolerable, 2000 new chestnut rails having been added to the fences within two years. Price $10 per acre; one half in hand, the balance in two years. Persons desirous of examining the premises, will call upon ANSEL WHEDON, Agent, near Lee station. For further information, address

A. & O. WHEDON.
March 18—w2—mtf. West Pawlet, Vt.

Agricultural Implement Manufactory,

Corner of Carolina and Third-streets, Buffalo, N. Y.



PITTS' PATENT SEPARATOR——IMPROVED DOUBLE PINION HORSE POWER—PITTS' CORN AND COB MILL, &c.

I HEREBY give notice, that since the extension of the Patent right on my machinery for Threshing and cleaning grain, I have removed to Buffalo, N. Y., where I have permanently located, and erected a large establishment for the future manufacture of the above machines.

The Separator has been enlarged, improved, and rendered more permanent and durable in all its parts—while the Horse Power, for strength, ease, durability, and cheapness of repair, is not surpassed by any in the United States. This Power is warranted to stand the full strength of eight horses, also to give as much effective or useful power when driven by one or two horses, as any other Horse Power, whether constructed on the endless chain or lever principle.

It was put on trial at the great exhibition of Horse Powers and Threshing Machines, at Geneva, in July last, 1852, where it received the New-York State Agricultural Society's first premium "*for the best Horse Power for general purposes.*"

The Separator, at the same trial, also received the Society's first premium. My machines will thresh and clean from three to five hundred bushels of wheat per day, and other grain in proportion.

Two hundred of the above machines are for sale at the Agricultural Works of the subscriber, in this city, all warranted to be a better article than can be purchased at any other shop, and if they do not prove on trial to be so, I will take them off the hands of the purchasers, at the price they may pay me for them.

I further notify all persons, who are purchasing Horse Powers and Separators to be used in California or Oregon, that I will hold them accountable for any infringement of the rights secured to me by letters patent in the above machines, as I am manufacturing a Horse Power and Separator expressly designed for that section.

All orders for the above machines, hereafter, addressed to the subscriber, will receive prompt attention.

JOHN A. PITTS, Buffalo, N. Y.
April 14—16—1am—e6m

Super-phosphate of Lime.

IN bags and barrels, made by C. B. DeBurgh, a warranted pure and genuine article, for sale by

GEO. DAVENPORT,
No. 5 Commercial, corner of Chatham-st., Boston,
Agent for the manufacturer, with directions for use.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.

April 7—14—1t—mtf.

THE Transactions of the New-York State Agricultural Society, vols. 1 to 9, for sale at the Office of "THE CULTIVATOR," price $1 per vol.

Agricultural Implements.

STRAW AND STALK CUTTERS—of all patterns.

CORN MILLS—both of Iron and Burr Stone.

CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.

ROAD SCRAPERS—of several patterns.

FANNING MILLS—of all the best makers.

SAUSAGE STUFFERS AND CUTTERS—of all patterns.

VEGETABLE OR ROOT CUTTERS—of approved kinds.

CORN SHELLERS—for hand and horse power.

VEGETABLE BOILERS—of Mott's and Bent's patterns.

GARDEN AND WHEEL BARROWS—of iron and wood.

HAY AND COTTON PRESSES—Bullock's patent

BRICK MACHINES—of Hall's and other makers.

WAGONS AND CARTS.

PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam PLOWS—Eagle, Massachusetts make, and Minor & Hortons.

For sale at the State Agricultural Warehouse, No. 25 Cliff Street, New-York. Nov. 1—tf.

Imported Horse Consternation.

THIS thorough bred horse has been exhibited repeatedly at the Fairs of the New-York State Agricultural Society, and by the unanimous voice of every committee that has viewed him, has been pronounced the best thorough bred horse that ever passed under their inspection. His pedigree will be found complete in Derby & Miller's edition of Youatt, and can be confirmed in every particular by reference to breeder's certificates, the English racing calendar, and English Stud Book now in possession of his owner.

His stock has been proved in Oneida county, where some of his colts are four and five years old—and any person may be satisfied of their great superiority by inquiring of almost any farmer, or horseman in Rome, Lee, or Western.

He will stand the coming season, as heretofore, at the farm of the subscriber, two miles west of Syracuse, and adjoining the village of Geddes.

TERMS—Ten dollars the season, and fifteen dollars to insure. The money to be paid in advance in all cases. When a mare is insured and left at the farm, or regularly returned to the horse until the groom is satisfied that she is in foal, a receipt will be given, promising to refund the money in case the mare was not in foal.

Pasturage furnished at three shillings per week. All mares at the risk of the owner in all respects. J. B. BURNET.

Syracuse, May 1, 1853—m3t.

Full Blooded English Draught Horse,

SAMSON 2nd,

WILL stand this season at the residence of the subscriber, [known as the Shotwell Farm] between Aurora and Lavanna, Cayuga Co., N. Y.

Samson 2d was sired by my Imported Draught Horse, "Old Samson," out of my full blooded Mare "Megg." "Megg" by same horse, out of my Imported Mare, "Margaret."

This valuable young Horse is the only one in the United States, that has more than half of the Original Samson Blood. He is a good dark bay color, with black legs; about 16 hands high; very compact, and posesses immense muscular power; is a kind and free worker; was six years old last summer, and weighs 1.555 lbs.

Terms, $8,00 to ensure a Mare with foal, payable on the first March next. Mares to be regularly returned; accidents at risk of owners. JOHN ROBINSON.

Lavanna, April 28, 1853 —17—1t—m2t*

The Original Black Hawk.

THIS celebrated horse will stand this season at the stable of the subscriber, in Bridport, Addison County, Vermont.

To the Patrons of Black Hawk.—It is proposed by the owner, that the horse shall serve fifty mares this season—and those who would like to secure the services of the horse, will please send to the agent their names, (by letter or otherwise,) as those sending first, will be first served.

Good keeping will be provided for mares from a distance—and all *accidents, escapes and thefts*, will be at the risk of the owner.

N. B—Terms for the use of said horse will be, for the *season*, $50, payable in cash or satisfactory notes on demand, with interest; and all demands for *past services* of *Black Hawk* and *Post Boy Morgan*, must be immediately paid to David Hill, who is alone authorised to settle the same.

DAVID HILL, Agent.
Bridport, Addison Co., Vt., May 1, 1853—3t.

Contents of this Number.

Diffusion of Agricultural Information, ... 201
Value of Guano, ... 202
Agricultural Chemistry, by JOHN JOHNSTON—Treatment of Peat Swamps, by A SUBSCRIBER, ... 203
Large Root Crops—Culture of Indian Corn, by WM. TODD, ... 204
Seed for large Crops of Oats, by J. W. COLBURN—Nitrogen in Plants, by WM. H. BREWER, ... 205
Making and Saving Manure, by SAMUEL F. WEST—Investment in Weeds, ... 206
To Clean Chess out of Wheat, by JOHN JOHNSTON, . 207
Scenery and Agriculture of Albany County, ... 208
Couch Grass—Sheep Shearing Festival, ... 209
Cost of Ruta Bagas, ... 210
Caterpillars in August, by S. B. BUCKLEY—Patent Bee Hives—Manure for Roses, ... 211
Our Country Churches, ... 212
Management of Cream, by H. T. RICHMOND—Turneps and Milk, by W. F. SANDS—Manufacture of Cheese, ... 213
Profitable Cow, ... 215
Mulching—Thinning out Vegetables, ... 216
Insect Repellers—Sulphur and Mercury—Destroying Black Ants—The Narrowed Gardens in Cities, ... 217
The Kithen Garden, by B. M—Remedy for the Cherry Slug, by A. S. Moss—Preparing Soil for Grapes, .. 218
Garden and Fire Engine—Remedy for Black Knot on Plum Trees, by F. JACOBS, M. D.—Cure for Rose Bugs. 219
Points of Excellence in Cattle, ... 220
Training Steers, by W. B., ... 221
Docking Lambs, by S. W. JEWETT—To Stop a Runaway Horse—Charcoal and Salt for Sheep—Management of Poultry, ... 222
Currant Wine—Green Ointment—To make Pure White Soap. 223
Notes for the Month, ... 224
Answers to Inquiries, ... 227
Information wanted—Ag. Societies, ... 228

ILLUSTRATIONS.

Country Church, ... 212
Garden and Fire Engine, 219
French Merino Sheep, .. 221
West Highland Bull, ... 222

Agricultural Botany.

AN enumeration and description of the useful Plants and Weeds which merit the notice, or require the attention of American Agriculturists, by WM. DARLINGTON, M. D. This volume contains 328 closely printed pages, with a copious glossary of Botanical terms, and an index of common names. It describes the plants yielding food for man and and animals; yielding condiments and drinks; medicinal plants; plants employed in the arts and rural economy; pernicious and troublesome plants, and mere weeds—nearly 500 in all. A bound copy will be sent by mail, free of postage, to any one remitting one dollar to E C. DARLINGTON, Lancaster, Pa. July 1—1t.*

Horse Powers, &c.

E. W. BADGER & Co., Manufacturers of Badger's Patent Horse Powers, Threshing Machines & Separators, Circular and Cross Cut Saws, &c., Fly Creek, Otsego County, N. Y.

List of Prices, 1853.

Two horse Power, Thresher, Separator, Bands, &c....	$145
One horse do do do do, ..	120
Circular Saw Mill, ...	35
Cross Cut do	25
Thresher, ...	25
Separator, ...	10

All articles warranted. For further particulars address E. W. Badger & Co., Fly Creek, Otsego Co., N. Y.
July 1—w1t—m1t.*

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

New-York Agricultural Warehouse.

PERUVIAN GUANO—Just received per ship *Grecian*, first quality Peruvian Guano.

No. 1 Super-phosphate of Lime constantly on hand; also, Agricultural and Horticultural Implements, and Field and Garden Seeds—the largest and most complete assortment to be found in the United States. R. L. ALLEN,
Nos. 189 & 191 Water-st., New-York.
May 19—w—20, 23, 26, 27—m2t.

THE COUNTRY GENTLEMAN has successfully completed the first six months of its history, and is no longer an experiment. We are assured that it has made many friends, and have received many kind words of encouragement from subscribers in all parts of the Union. As the entire numbers for a year make a volume too bulky for convenient reference, we have concluded to issue it in two volumes a year. The first volume was completed with the last week in June, and was accompanied with a Title Page and Index.

THE SECOND VOLUME commences with the first week in July, and we solicit for it the earnest efforts of our friends. Subscriptions will be received for six months, and those commencing with July will have a perfect volume, with title page and index, at the close of the year. We ask particular attention to the following:—

TERMS.—*Payable in advance.*

One copy, one year, ...	$2 00
Three copies, one year, ...	5 00
One copy, six months, ...	1 00
Six copies, six months, ...	5 00

THE COUNTRY GENTLEMAN.

A Journal for the Farm, the Garden, and Fireside.

THE COUNTRY GENTLEMAN has a four-fold purpose—1. To promote the interests of the FARMER, by furnishing him the most approved method of cultivating all his crops and of keeping his farm in a continually improving condition, together with the best mode of breeding and rearing all the Domestic Animals. The Farm Department is intended to be a reliable record of the present state of Agriculture in all parts of the world, and to contain suggestions for Farm management and economy.—2. To be a complete manual for the GARDENER and FRUIT GROWER, and to give safe and specific directions for the culture of GARDEN VEGETABLES, and also information with regard to the FLOWERS, SHRUBS, and ORNAMENTAL PLANTS, suited to the various sections of the country.—3. To supply the FIRESIDE with a variety of instructive and entertaining reading of a high order, and yet suited to the capacity of every reader, to awaken a desire for knowledge and to cultivate a taste for HOME IMPROVEMENT and a love for HOME VIRTUES.—4. To present a careful, concise and impartial RECORD OF THE TIMES, containing all the important events of the day and signs of the times, and thus to lay before country residents a brief and connected history of all the leading movements in the Social, Educational and Political World. In connection with this department, a weekly synopsis of the PRODUCE MARKET, compiled expressly for the paper by a gentleman thoroughly versed in the business, will be given, which will be invaluable to every farmer who has produce to sell.

It will be the aim of the publisher to make the paper attractive and elegant in its typography and illustrations, choice and select in its contents—to make it indispensable to the Farmer, and desirable to every one who has a rod of ground cultivate, or a home to beautify—and by devoting its columns to IMPROVEMENT IN AGRICULTURE, ELEVATION IN CHARACTER, AND REFINEMENT IN TASTE, to render the COUNTRY GENTLEMAN the standard in its sphere.

TERMS.—The Country Gentleman is printed in quarto form, on Thursday of each week, each number consisting of sixteen pages, and forming two annual volumes suitable for binding, of 416 pages each, at TWO DOLLARS per year when paid in advance, or $2 50 if not paid in advance.

Those wishing to subscribe, will please forward TWO DOLLARS to LUTHER TUCKER, *Publisher*, *Albany*, *N. Y.*

☞ Specimens sent to all post-paid applications.

THE CULTIVATOR:

A MONTHLY JOURNAL OF

Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 *CENTS A YEAR.*

All subscriptions must commence with the January No, and the payments must in all cases accompany the order for the paper.

LUTHER TUCKER,
Publisher, *Albany*, *N Y.*

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. I. ALBANY, AUGUST, 1853. No. VIII.

Rotation and Good Management.

IT is surprising how much more some men will accomplish by dint of good management and shrewd thinking, than others will by hard and laborious toil. A good story is told of a "back woods" farmer, in whose fields the stumps and his crops held each a sort of doubtful jurisdiction, and who was very much annoyed by the difficulties in contending with these stubborn representatives of the original forest-oaks. His boys complained much of the annoyances they met with in plowing and harrowing—the old-fashioned "drag" especially gave them great trouble, by its constant overturning while plunging among the stumps; once in each ten yards of traveling, on an average, they were obliged to stop and place it "right side up." "Boys!" said the father one day, when his patience had become exhausted, "take that harrow over to Hammerwell, the blackswith, and tell him to make the teeth all twice their present length and shape at both ends, and we shall see what we can do!" It was accordingly done, and the harrow came back with its teeth as surely pointing both directions as those of a revolving horse-rake. "Now, boys, we will try the new harrow," and it was accordingly set in motion. "Why, father," soon exclaimed one of the sons, "it has upset again, just as bad as before!" "Never mind, go right on without stopping, it will work either side up." The difficulty was conquered; and the harrowing was speedily accomplished, and without the innumerable delays of "righting the ship."

We have seen some very industrious and worthy farmers whose labors we could not help comparing with this continued toil with the harrow; and others again, whose skilful management was fully equal to the double-acting, double-toothed pulverizer. And in nothing was this difference more visibly exemplified than in the arrangement and ROTATION OF CROPS.

There are other very important requisites in good farming, but they are all accomplished with an increase of expenditure and labor. Manuring, for example, is a most powerful means for improvement; but both manures and their application are expensive in proportion to the amount applied. Underdraining has wrought wonderful results, but the cost is always a large item, and the same may be said in some degree of deep plowing and subsoiling. But in the arrangement of a rotation, no additional expenditure or labor is necessary; it costs no more to cultivate crops which are made to succeed each other judiciously, than to cultivate those arranged in the worst manner possible. The former may bring triple the successful results of the latter—not by the expenditure of five hundred extra days in drawing manure, or five hundred dollars worth of ditching; but simply by making a proper use of one's brains.

It most fortunately happens that no extraordinary originality, shrwedness, or profound wisdom, is needed to render available all the advantages of a well devised rotation. The full experience of others is furnished directly to our hands, in the excellent practical publications which have appeared on this subject; and all we have to do is to make use of the materials right before us. It seems surprising, under these circumstances, that so small a number seize the golden prize thus completely placed within their reach—that there are so few, even of those reckoned good farmers, who pursue anything like a systematic succession, to say nothing of such a rotation that shall accomits peculiarly beneficial results, namely, preservation of the riches of the soil, destruction of weeds, destruction of insects, and the most advantageous consumption by each successive crop of all the means for its growth within reach. As a consequence of this neglect, we see land overcropped with wheat, the soil worn out for this particular grain, and those troublesome weeds, chess and red-root, taking its place. We see pastures, left unplowed for a long series of years, become filled with "buttercups" and oxeye daisy. A disproportion of spring crops facilitates the spread of wild mustard, and among insscts, grubs and wire worms increase according to the cultivation that favors their labors. It appears to be but little understood how great is the assistance, to clean cultivation afforded by a good rotation. The best example of this sort we ever witnessed, where every field of the symmetrically laid-out farm except a wet meadow, was brought under a regular, unvarying system, scarcely a weed was ever to be seen; and we ascertained that not one-third of the labor usually expended, was required for the hand-dressing of hoed crops. The alternation was such that the whole operated like the two-faced harrow—the culture of each successive crop constantly tended to the destruction of some weed injurious to another, and thus all were destroyed in their respective turns; while at the same time the fertility of the land was increased, and each crop fed with its own proper nutriment as its turn came round.

◆

Grain Crops in New-Hampshire.

The Report of the Committee of the New-Hampshire State Agricultural Society, as published in the *Granite Farmer*, shows very conclusively that large crops may be raised in that State, provided the great essential requisite, good cultivation, is given. Among the statements, we observe that of James Wilson, of Francestown, who raised thirty-nine bushels and twenty-seven quarts of spring wheat on an acre and thirty-two rods, or thirty-three bushels and seven quarts per acre. The land was plowed in 1850, ten inches deep—the next year 25 loads of fresh manure were plowed in, and corn planted, using 15 loads yard compost in the hills. In the spring of 1852, the ground was plowed twice thoroughly, and two bushels of Black Sea wheat sown. The following is the estimate of the cost *per acre*:—

Plowing twice,	$3 00
Three harrowings,	75
One-fourth of 40 loads of manure, $1 per load,	10 00
Two bushels of seed,	2 50
Interest on land,	3 00
	$19 25
Credit by 33 bush. 7 qts. wheat at $1,25,	41 50
Nett profit,	$22 25

It will be perceived that this success must be in a great degree owing to the 40 loads of manure, well mixed with the soil by the plowings and harrowings.

Several other crops of spring wheat varied from 20 to 27 bushels per acre.

Indian Corn.—Six experiments were reported, the product varying from 54 to 101 bushels per acre. We observe a leading feature in nearly all these experiments, the large quantity of manure used. The crop of James A. Cook, or Cornish, yielded 96 bushels per acre; it was manured first with 50 cart loads (size of cart not stated) per acre, plowed six inches deep; then with 50 loads of compost, plowed under three inches deep; the corn planted in drills three and a half feet apart, and six inches in the drill, and with 20 "loads" of "hog-manure and compost" in the drill. Soil sandy loam—suffered by drouth and worms—harrowing "equal to twenty times over." Experience has taught us that from one-fourth to one-third more may be raised by planting in this manner in drills, over planting in hills; but we very much question the economy of so copious an application of manure *at one time*, under ordinary management and at ordinary depth of culture. If thoroughly intermixed and covered with the soil, the whole would doubtless be absorbed and retained; but the difficulty of thorough admixture increases with the quantity applied at one time, and although the crop may be very large, there may be more waste by evaporation of volatile parts than with a more moderate quantity. Recent experiments indicate that the loss of manure from imperfect pulverization and mixture, is much greater than is generally supposed, often amounting to one-half or two-thirds of the whole quantity applied.

Emerson Furber's crop of corn—41 bushels on 65 rods, or 101 per acre—was raised on a piece of ground, enriched by occupation as a cow-yard, and afterwards by four cords of manure plowed ten inches deep, and well mixed with a cultivator. The corn was planted in hills, and the ground stirred "often." No complaint of drouth and worms is made, as in the previous experiment; and the crop would doubtless have been larger had it been planted in drills. Ths experiment is certified by witnesses.

John Brown raised 31 bushels on half an acre, or 62 per acre, in a district of country where the weather proved very unfavorable. His rule is to plant potatoes on sod, plow under 15 cartloads of manure in autumn, (50 bushels per load,) and twenty-five the next spring, and then plant the corn in rows 3 ft. by 2, thinning to 4 stalks in a hill, and avoiding hilling. He states that for fifteen years, his crop has been from 75 to 136 bushels shelled corn per acre, the average over 85. He thinks 40 loads of manure more economical than 20, the latter usually producing about 40 bushels per acre, the former about 80, the cost of cultivating being in both cases the same. It is an interesting subject of inquiry, what quantity best promotes that degree of growth which shall afford the best remuneration for the outlay—varying of course with the previous fertility of the land. J. Brown thinks he has greatly improved the productiveness of his crops of corn, and kept up its early ripening, by selecting the seed in the field.

◆

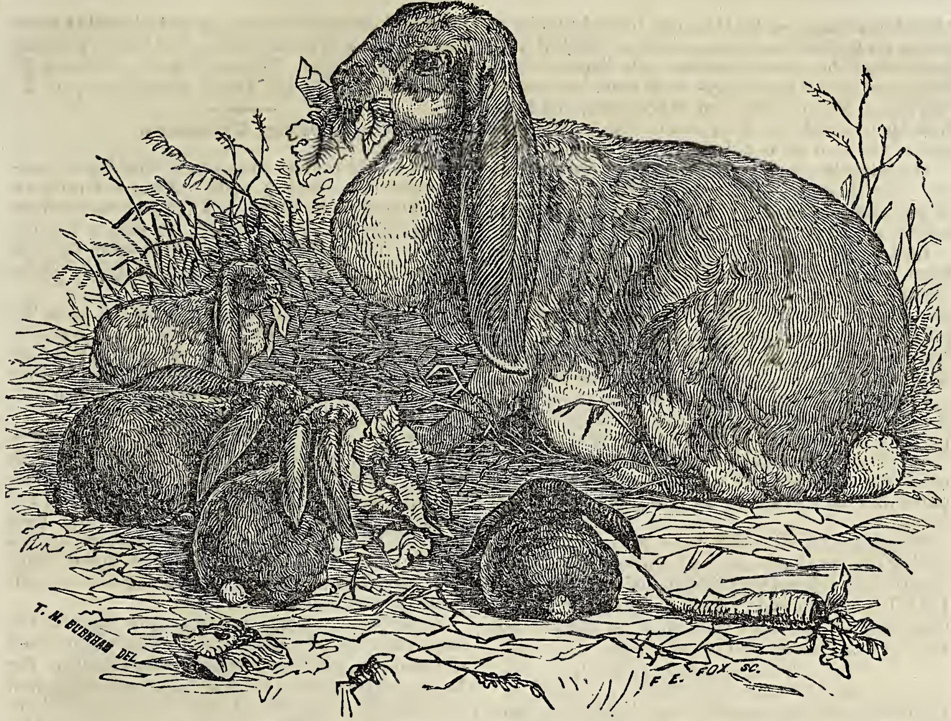
Salting Hay.

Judging from what I have seen within my own sphere of observation, I should say that the business of salting hay, where it is done at all, is done in a rather slovenly and injudicious method. The common practice seems to be, to unload a whole wagon full of hay at once, without the sprinkling on of any salt, and then to throw on in handfulls, a peck or so, when the unloading is completed. This will necessarily make some of the hay excessively salt, while a part will receive no benefit from it all. Some assert, in defence of this slovenly and wholesale mode of salting hay, that the salt will rise through the whole load, from what was put on before each load; and some again speak of the salt being sure to soak down from above. Neither supposition has any plausibility to support it. I am satisfied, both from experience and the nature of things, that the better way of applying salt is to sprinkle a little, say from a teaspoonful to a table-spoonful, upon each forkful as it is unloaded. Any boy could attend to this. Even little girls have sometimes turned out and done this, in the midst of the hurry of hay harvest. But where neither little boys nor girls can be had to attend to the regular sprinkling of salt upon every forkful of hay, I think it a matter of so much importance, that I take a man from his work in the field to attend to it.

When salt is thus evenly sprinkled over your hay as it is mowed away in the barn, you need give yourself no concern about salting those creatures that partake of it during the winter. They will get a little every day, every meal, with their hay. This certainly seems more natural and healthy than getting a whole lot at once, at intervals of a week or so. The quantity which I aim to have used, is as near as may be to a peck to each ton of hay. Observer.

◆

Useful Embroidery.—The New-Hampshire State Ag. Society has offered $22 in six premiums for the best specimens of Patching and Darning, to be exhibited at the State Fair next autumn. We should look upon these specimens with far more interest than all the worsted dogs, and flowers, and trees, and "parrots with twin cherries in their beaks," containing all the essential elements of stiffness, and seen for the thousandth time. A part of the premiums are for girls under 14.


T. M. BURNHAM DEL.
F. E. FOX SC.

Fancy Lop-eared Rabbits, imported and bred by George P. Burnham, Boston, Mass.

Fancy Rabbits.

Messrs. Editors—In a late number of the Country Gentleman, I noticed an article from the pen of one of your correspondents on the subject of "*Lop-eared Rabbits.*" As I have a few fine samples of this much admired stock, I send you a drawing (taken from life) of one of my favorite does, now with her young beside her.

My fancy rabbits I imported from Dublin, from London, and from Liverpool. I have had five different lots from England and Ireland, and they prove very fine specimens. My rabbitry is constructed so as to accommodate forty breeders, each in separate hutches, which are arranged in tiers, or ranges of boxes, one above another, five in number from floor to ceiling. The hutches are each about 3 feet long, 15 inches high, and 28 inches deep. At one end is an apartment, divided off for sleeping, and for the doe's convenience. The front is wired, the floors slant to the rear for drainage, and there is a flap-door behind each hutch or cage, which is raised for the purpose of cleaning out the boxes daily.

I feed them upon oats, ruta bagas, clover hay, beets, turneps and carrots; and, in the summer, upon other seasonable vegetables, with brewers' grains, corn meal, etc. In one end of my rabbit house, I have a portion of it divided off from the main hutches, (or breeding room,) into two apartments, for the *young* rabbits, after being taken from the does. From these two apartments, there are small doors opening out at the southwesterly side of the rabbitry, upon a clover lawn, where, for an hour or two each pleasant day, the young ones are permitted to sport and enjoy exercise. The old rabbits are kept up, altogether, in the hutches, where they thrive well with judicious feeding and care.

These rabbits are both for the table and as "pets." They reach a great size, and often weighing 12 or 13 lbs. each, and more; while the beauty of their forms, their varied colors, and their long pendant ears, make them a pleasing novelty among those who have a taste for similar favorites on the farm or rural retreat.

The demand for purely bred fancy rabbits has been altogether beyond the supply in this country, for the past year or two. I shall have a few pairs to dispose of by and bye, and shall be happy to furnish any of your readers who may come in season, with such as I may have, at four to six months of age, bred from the imported animals. Yours truly, Geo. P. Burnham. *Boston, Mass.*

◆

Practical Farmers—Farming on Long Island.

The first and most important question which arises in taking this subject in view, is, "who is the practical farmer?" This is probably the most disputed question in agriculture. But in my mind it is easily answered. It is he who understands the *art* and *science* of *farming*, and can base his plans on no false theory, but on the scientific baseof husbandry, and then see them carried out in a manner which shall prove his knowledge of the practice, or if you please, "*by the sweat of his brow.*"

But let us notice the practical farmer of the present day, or more properly, he who *calls himself* the practical farmer. He can boast of an ancestry of *practical* farmers, who have impoverished his farm so that he can scarcely make a living on it; but how, is a question, which if you put to him, he cannot answer. He lives, or half lives, and so do his family—but how, he cannot tell you. He has no system of accounts, and if he had they would be of no use to him, for at the end of the year he could not reckon them up.

My intention is far from ridiculing *these* farmers; but it is to awaken them to the necessity of improvement, and if this be impossible in themselves, not to deny it to their children.

Last spring, when I first took possession of this farm, one of the first practical jobs which I accomplished, was (with spade in hand) to examine the *subsoil*, which I found to contain no substance poisonous to vegetation, and to my delight, for our soil is a sandy loam, it appeared to contain more clay than was to be found in the surface soil.

I plowed a lot which I designed for oats, from six to eight inches deep. This lot was the poorest piece of land on the farm, and had never before been plowed more than three inches deep. The oats were then sowed, and the only manure applied was 100 lbs. Peruvian guano per acre, sown broadcast.

My neighbors all said I was ruining my land by letting the *goodness out*, and showered upon me many other *interesting* criticisms of the same kind. I tried to reason and explain to them, that I had done nothing but what *common* sense taught; but to convince them was of no use, for—

> "He that's convinced against his will,
> Is of the same opinion still."

I therefore let the matter rest, hoping to show them the benefit of the course I pursued in *harvest* time.

I would add that these oats, at present, look better than those sowed by my neighbors three weeks previous to them, on a much richer soil.

On the Long Island farms, the top of a side hill is usually called a *gravelly knoll*, as the soil, if there ever was any on it, has long since washed off, making it not only useless for cultivation, but decidedly unpleasant to the eye. The knolls are scarcely ever cultivated, and never manured.

I have been thus particular in this description, as I wish to mention the treatment I pursued on one of them previous to planting it with Indian corn. In a lot of five acres, one-tenth of it was taken up by one of these knolls. I first spread it over broadcast with 23 loads of pond mud, which was last winter exposed to the action of the frost. I then spread, in the same way, several loads of pig manure; these having been plowed in, and well harrowed, I planted my corn with dung in the hill, as I did also the remainder of the lot.

The corn, at this date, on the side hill, looks as promising as that in the valley of the lot, which is a rich loam. I will not mention the many discouragements I met with while pursuing this course, supposing, as they were disagreeable to me, they would also be to the reader.

There is no portion of the state where the land is more subject to drouth than on this island, and probably no region where deep plowing is so little attended to. On sandy and friable soils, deep plowing may often be injurious, but this is an exception to the general rule. When the rain runs off the hills without penetrating the soil, and thus causing drouth, the best remedy is to plow deep.

I have already written more than was at first my intention, and will therefore *cut short*, promising after harvest to give the results of the crops I have spoken of, be they *good* or *bad*, and at some future time will relate the course I have pursued with other crops. Your ob't serv't, George T. Hammond. *Hill-side Farm, Huntington, L. I.*

Smokey Chimneys.

We would prefer almost any situation to confinement in a smokey room. Many a family we have known to be reared in kitchens that received smoke enough, every month, to cure a heap of bacon. These same families would seem to be so thoroughly cured by smoke, as to defy the cholera or any contagious disease.

One imagines that his house is located upon the wrong side of the hill or wood lot. Another complains that his dwelling stands in a valley where the winds move in a fixed current down his chimney, and no scientific application can prevent it.

As you pass through many a village or country town, you find the chimney tops adorned with every kind of paraphernalia that human wisdom may invent. The first impression is, that you are passing a sentinel upon the walls. In our cold latitude, where chimneys are indispensible, nothing, at so little cost, sets off the upper story and good appearance of a dwelling like a well-proportion chimney top.

Sometimes, where there are two flues in the same chimney, the smoke will ascend the one and descend the other into another apartment of the house. To remedy this, take out the division wall between the flues, from the top downwards about four or five feet. This will check the cold draught, or descent in the opposite flue.

Smoke is an elastic fluid, and being rarified by heat, becomes lighter than the atmosphere, and rises to its proper elasticity, unless some obstruction or stronger current turns it from its natural course.

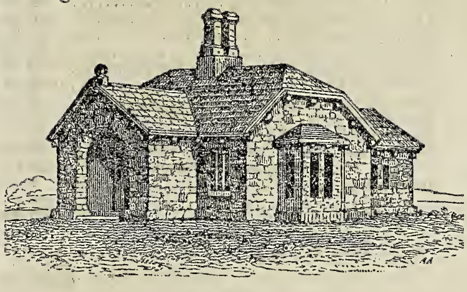
All bodies, lighter than the surrounding atmosphere, ascend in a perpendicular line. The same may be applied to those substances that are more weighty than the atmosphere; they fall in a perpendicular line, unless forced out of their natural course. Smoke, near the fire, is the most elastic, and rises faster than when at some distance above it. This is one principal point why the draught to open chimneys, for burning wood or coals, is so slight; the sooner the smoke cools, by coming in contact with a larger quantity of the surrounding atmosphere, the slower it ascends.

The flue, at some distance above the fire, may be too small, and the throat of the chimney, just opposite the mantel, immediately over the fire, may be too large, or the throat may not be directly over the fire to receive the smoke, all of which will prevent the free and upward tendency through the chimney, to the outside atmosphere.

The throat of the chimney, in all cases, should be at a proper distance from the fire, and *perpendicular above it*; where the throat is of immoderate size, however perfect in every other respect the fire-place may be constructed, nothing can prevent the warm air in the room rapidly escaping through it. The same applies to cast-iron fireplaces, or open stoves, for burning wood or coal. The draught can be carried backward, but to receive the smoke, the flue must commence perpendicularly above the fire, and the throat not more than one-half, one-third or one-fourth the size of the flue above, because, as before stated, the more heated the smoke the more rapid it rises, and requires a less aperture to pass off; but as it becomes chilled as it leaves the fire, of course it is less elastic and requires a larger flue, that it may not choke up and set back into the room, as we too frequently see it. Respectfully, S. W. Jewett. *Middlebury, Vt.*

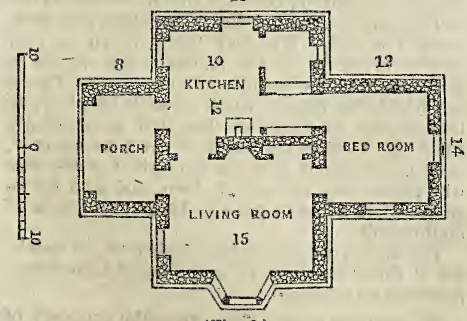
Toll-House.

No building is placed in a more conspicuous position than a toll-gate house; and as a general remark, none is more destitute of architectural taste; for if there is in the whole country, on our numerous turnpikes and plank roads, a single really handsome erection for this purpose, we have never been so fortunate as to find it. Many of the roads, it is true, pay very scanty dividends, and although the stockholders may be rich, the company is poor; and we must admit the same excuse that is rendered for the erection of the slap-and-turf shanty—no better can be afforded. But this is by no means universally the case; some of these corporations are making money rapidly, and deserve to be represented by a decent looking structure.



(Fig. 1.)

The accompanying figure represents a plain and simple, but architectural cottage for a toll-gate. The open porch is the place for receiving payment from travelers. A few trees planted about this cottage, it is very evident would impart to the whole, a neat and beautiful appearance. This house may be built of cobble or block stone for about $400, and might easily be converted into a cottage for ordinary purposes, by closing the opening of the porch, and making a bed-room of the wing. It would then contain a living room 12 by 15 feet; a bed-room 11 by 12 feet; a kitchen 10 by 12, with a small store room partitioned off from it; and another bed-room 8 by 14.



(Fig. 2.)

In some instances, where the road is very profitable, a substantial cottage of more cost and pretensions might be erected, a hint for which may be furnished in the accompanying view (fig. 3) representing the entrance lodge of the Derby Arboretun, in England, and which would also be greatly improved by half a dozen good ornamental trees.

High Culture and Heavy Crops.

The following account (copied from the Mark Lane Express,) of the enormous amount which may be obtained from land when under *deep, thorough*, and *constant* cultivation, and very high manuring, exhibits in a striking light the superiority of such management. It must be remembered that all the profits here attained (over $500 per acre for mangel wurtzel, besides two other crops the same year,) are accomplished by spade cultivation and hand labor; let trench-plowing, subsoiling, and horse drilling and horse cultivation, take their place, and the difference between cheap labor and good markets, as in the instance given, and higher labor and lower markets in this country, would certainly be fully made up. We are not at all surprised at the small extent of root culture among our farmers, when we see the great want of economy in their culture and management. Where, for instance, shall we find such an implement in use as Garrett's horse hoe, which will dress out at one passing, ten rows of roots, shaving all the weeds within an inch of the plants, and managed and guided by a single hand?—

For the benefit of the readers of your journal, I beg to inform the "Devonshire Farmer" that Mr. Charles Bagley, of Fulham, a market gardener of the first magnitude, within the last five years has grown, and weighed publicly, when topped, tailed, and well cleaned, upwards of 80 tons of mangel wurtzel per acre, and sold it to the London cow-keepers at 27s. per ton. I understand he grew about seven acres of the said mangel. He lays 100 tons of manure per acre per year; and he plants upon the land that is for mangels, after Michaelmas, cabbages, in rows one foot asunder, being 43,560 cabbages upon an acre Early in the spring, every other row of cabbages, containing 21,780 upon an acre, is taken away, and they are sold in bunches as greens, and a row of mangel wurzel is planted in the place, by the side of 21,780 cabbages upon an acre, being then a row of cabbages and a row of mangel adjoining the cabbages. The cabbages stand until they are fit for market; they are then taken away to make room for the mangel, being one root of mangel in two square feet, alias 24 inches by 12 inches, or 288 square inches for each mangel wurtzel. Of course a market gardener of such great discernment would not let a plant be wanting to make up a full crop; at that rate and management there is not a foot of ground lost, very unlike the crops of many farmers.

This market gardener occupies about 80 acres of land, a great part of it his own property. I have known him in what they call the gathering season, pay £100 a week for labor; and I have seen, not in the busiest time, 50 men laborers leave the gardens to go to dinner, and also with them 25 women, making together 75 people, employed upon 80 acres; and I have seen them return again after dinner. I have known this persevering market gardener have two crops in a year, besides a crop of mangel. The first early row of cabbages being taken away, a row of lettuce is planted where they stood, and the mangel wurzel is planted after the last row of cabbages is taken away, getting three crops in one year. There being 21,780 plants of mangel in an acre, to produce 80 tons per acre, the plants ought to average 8¼ lbs. each, which amounts to a little over 80 tons per acre.

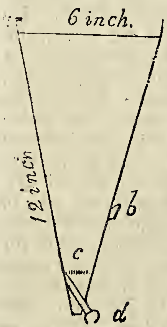
A noble-minded, high-spirited, keen-sighted farmer, a pupil of Mr. Bagley's produced last year, in a midland county, yellow globe mangel, many roots of which weighed 16, 17, 18, 19 and 20 lbs., each plant or root; and I saw the said roots exhibited in London last Christmas. Mr. Charles Bagley's 80 tons per acre were the long red mangel. A great deal of useful information may be gleaned by the farmers from the market gardeners near London, in producing green crops, filling up vacancies, &c., &c.

Roots being the mainstay, of good husbandry, it is by the cultivation of them that the Norfolk farmer has spread his fame throughout the world, and Lincoln Heath and the Wolds in Lincolnshire, the same; all of which has struck thousands with admiration and amazement, to see hundreds of thousands of tons of fine meat produced where only rabbits and vermin existed before; many howling wildernesses brought into cultivation, now producing fine crops of corn, turneps, and clover. Mr. Coke, the late Earl of Leicester, used to say the more meat a plowed farmer sent to Smithfield, the morn corn per acre he would be enabled to sell at Mark Lane.

Box for Sanding Buildings.

I will try to describe an apparatus for sanding buildings, &c., which I made and used, myself, with effect.

This is an end view. It is in the form of a wedge, made of one-half inch board, 12 inches long, 8 inches wide, 6 inches across the head, and one-eighth of an inch at the mouth. *a* and *b* are the places for the hands when using. At *b* is a wooden handle—*c* is a light support in the middle to keep the sides from spreading—*d* is a roller, 2 inches in diameter, and 8 inches long, with iron gudgeons, and fastened with iron straps to the machine, in such a manner that the sand falls between the roller and the building on which it rolls, and thus presses the sand into the paint. The machine is held at an angle of 45 or 50 degrees, and runs up on the roller, being pressed hard to the building. It will fill the paint with sand, leave a smooth surface, and give an appearance of grained stone. It may be used with good effect on buildings, that are ceiled or boarded up smooth, and is supposed to be more lasting than common paint. I forgot to say the sand is put in at the upper end, which slides out and in, for that purpose. A. S. Moss. *Fredonia, N. Y.*



Profitable Crop of Hops.

Messrs. Editors—According to your request, I send you the un-published manuscript of my account, of five acres of hops, one acre of which produced 2,886 lbs., the largest amount per acre on record. You will see, by referring to the State Transactions, 1851, Madison county, that I received the 1st premium on my farm—the manner of cultivation—also a statement of my hop crops, &c.

You will perceive that I give items of expense, depreciation of hop-poles and buildings, which, in my opinion, should be taken into account. If the enclosed will be of any service to you and the public, you can publish them.

I would refer you more particularly to the Transactions for my farm operations. The manner of *keeping farm accounts, &c.*, which, in my opinion, is one of the most important matters in arming. H. P. Potter. *East Hamilton, Madison Co., N. Y.*

Lot. No. 8—Hops—Five Acres.

	Dr.
To 109 loads manure and drawing, 4s.,	$54 50
134½ days work, to Sept. 1st, 6s,	100 88
42 " tending box, 6s.,	31 50
15 " drying hops, 12s.,	22 50
14 " pressing hops, 6s.,	10 50
270 bush. coal, 7c.,	18 90
Hop sacking and twine,	24 32
Cost of engaging and collecting hop pickers,	13 18
Paid for picking hops,	132 36
Help in house,	9 00
Provisions,	48 65
Interest on land, $65 per acre,	22 75
Depreciation on hop poles, 10 per cent,	30 00
" on hop-house, 10 per cent,	30 00
Insurance,	2 75
Whole expense,	$551 79
Cost per acre, $110 36.	
Profit of five acres..	1,050 41
	$1,602 20
Cr	
1851. Sept. 20. By 7,801 lbs. sold, 20c.,	1,560 20
Hop roots sold in April,	42 00
	$1,602 20

Making the Most of the Soil.

The interesting Address of W. Clift, before the Windham County Agricultural Society, (Ct.) for a copy of which we are indebted to the kindness of the author, contains the following excellent remarks on the subject of enriching and deepening the soil. We may lay it down as very nearly correct, that the amount of a crop is in proportion to the number of cubic yards of good soil which the farmer turns up with his plow; so that he who plows a foot deep and consequently turns up 1600 cubic yards of earth to an acre, may expect about as much in product as the man who plows only half a foot deep, and who has to go over two acres to get the 1600 cubic yards of mellow soil.

The author of the address before us, in speaking of the importance of agricultural knowledge, proceeds as follows:—

We come to speak, then, upon the economy of this education, to the farmers as a class. Some of my hearers possibly do not find farming a very profitable business. Some perhaps hardly make the ends of the year meet, and others do not save more than two or three hundred dollars a year, by their hard toil.

This kind of education which is within the reach of every one who hears me, would help you in the matter of dollars and cents. It would lead you to economise *in the quantity of soil you cultivate.* You now spread your labor and your manure over too much surface. The *average* produce of corn per acre in the state is not over forty bushels. The experiments of educated farmers in Massachusetts and in other New-England states, have demonstrated that a hundred bushels and more can just as well be grown upon the same acre. Premiums upon this crop, in almost all the counties of Massachusetts, have been awarded, varying from ninety to one hundred and forty-five bushels shelled corn to the acre. It takes *more* labor and more manure, but a bushel of corn is produced, at least twenty-five per cent. cheaper, by thorough culture than by the common process. So of all other crops. They can be grown much cheaper on a little land than on a greater surface. The educated farmer would see this and practice upon it. Almost every farmer could sell half of his land and get rich faster on the remaining half.

He would also economise, *by a thorough mechanical preparation of the soil.* Most men own a second farm, beneath their present surface which has never been disturbed by the plow. Indeed, the shallow surface plowing, has only served to harden and consolidate the subsoil. There are more or less of the elements of crops in this subsoil originally, and some of the salts of the manures, with which the surface has been dressed for ages, have found their way down into this "terra incognita." The roots of crops cannot penetrate thither, to get hold of this aliment, and it remains worthless, like undiscovered gold in the mine. There is more wealth of this kind in the subsoil of our farms, than in all the gold of California.

The educated farmer will put his sub-soil plow into this mine of wealth, and give the roots of plants a chance to draw up its treasures, and wave them in the golden harvests. And the result ot this mechanical disturbing of the soil, will not only give new pasture ground for the roots of plants, but will put the soil itself, in a better condition to foster vegetation. The soil is loosened, and the air circulates freely, to the depth to which it has been disturbed. The air circulates there, charged with more or less of moisture, and moisture is also drawn up by capillary attraction from the earth beneath, so that the evils of a summer drouth are in a great measure guarded against. So also the excessive rains of spring, and the summer showers, do not flood the crops and destroy them. A more abundant harvest is secured, and larger returns to the farmer's pocket. The educated farmer, will increase the depth of his acres, just as he reduces their breadth and grow rich by the operation.

◆

The New-York *Agricultor* says that in the lower part of Dutchess county, serious ravages are being committed upon the forest trees by a bug. The insects strip the tree of all its foliage, and leave nothing but the naked limbs. They appear to move in straight lines, as they can be tracked through a grove. They eat through a narrow strip, leaving the trees on each side untouched. Their noise resembles the buzzing of a swarm of bees.

Apples for Milch Cows.

We have long been satisfied that one of the best and most profitable crops which any land owner could raise, is sweet apples for milch cows. Late in autumn all cows shrink very much in the quantity of milk they afford, more especially as soon as the sharp night frosts destroy the succulence of the pastures. It is at this period that moderate feedings of sweet apples, say six quarts given morning and evening, have restored the quantity of milk and increased its richness; and a great advantage has resulted where a supply could be had for feeding through winter. An unfavorable opinion of apples, as a food for cows, has sometimes arisen from the furious over-feeding of half-starved animals, which have accidentally broken into orchards, and brought on disease, fever, and consequent drying of the milk by immoderate gorging,—a reason for renouncing such food, would as well apply to the exclusion of oats from horses and cold water from men, because they are sometimes injured by an excess.

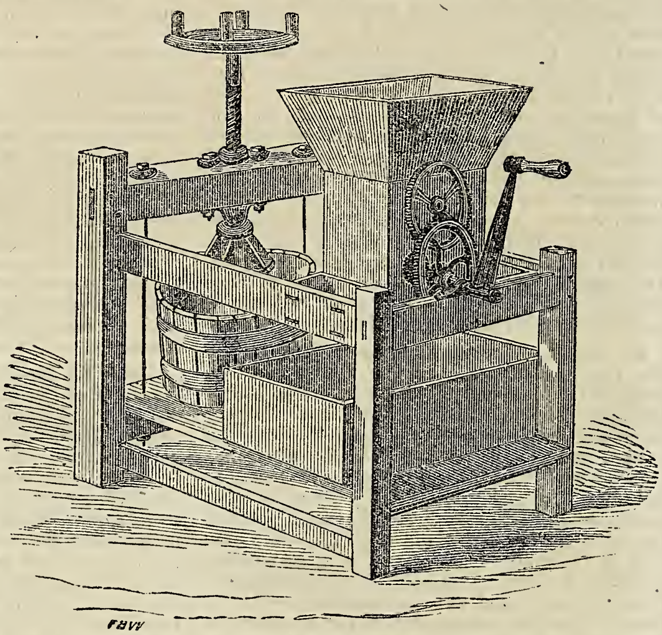
Amid the profusion of tree-planting of late years, we are surprised to see so few orchards set out for feeding domestic animals, by a selection of some particular varieties especially adapted to this very purpose. We want a different sort from those ordinarily selected for table use, which are admired for their pleasant and delicate flavor; while a stock-feeding apple should be in the first place a free grower and most abundant bearer; next, of firm and rather dry texture, and of rich but not delicate flavor. If dry and firm, they are more easily gathered without bruising, more easily kept from freezing, and contain more substantial nutriment than light, juicy, tender sorts. And as a general rule, such apples are the best keepers,—take, for example, the firm and dry English and Roxbury Russets, and the Black Gilliflower, the latter of which has been already proved a good sort for spring feeding, and would be still better if perfectly sweet. The present is likely to be one of the most abundant fruit seasons ever known; and we believe that a more acceptable service could not be rendered by pomologists to the enlightened agricultural public, than a thorough examination among the innumerable native apples, for a pre-eminently productive sort, adapted to stock-feeding. Would it not be well worthy the attention of a state agricultural society, to offer liberal premiums for the best, second, and third new variety that should be presented for this purpose, the decision to be founded on a bushel placed before the awarding committee, accompanied with statements, properly authenticated, of the size and age of the tree, treatment, present crop, and former character for bearing? We should like to see something of this kind attempted, instead of perpetually repeating the same old premiums on what has been well known for a quarter or half a century, all through the land.

It is the *cheapness* of the apple crop, when thus raised under the most favorable circumstances, that strongly commends it to the attention of stock-raisers. A very prolific sort will bear five times the quantity of the ordinary average of table apples; and forty such on an acre of land might be easily made to average ten bushels each annually. The Rhode Island Greening, in Western New-York, has in repeated instances, in a single neighborhood, yielded forty bushels per tree; and in New-England the Baldwin has yielded over

Hickok's Improved Portable Cider Mill.

(Under one existing patent and two pending applications.)

The accompanying figure represents a complete and effective machine—the whole being contained in one frame 2½ by 3 feet and 4 feet high, the whole weighing 300 lbs. This mill will, attended by two men, when properly worked according to directions, make 6 to 12 barrels of cider a day.



The peculiar arrangement of the cylinders is such that no description of apple will clog it up, but it will at all times work free and fast—qualities that are indispensable, and it is believed no other machine possesses.

The press is provided with a heavy wrought iron screw, and the pressing-box or tub is so arranged that soon as the pressing is accomplished it can be opened in an instant, and the pomace taken out, and it closed as quickly and another charge put under the screw.

No straw or bag is needed, and the cider comes out fast and clear. Any boy 14 years of age can press as readily as a man.

While it possesses all the advantages of the old style press, it has none of its objections. One quart or one barrel can be made any time the owner chooses to use it, and he can work up the apples off of each tree to suit his convenience. The mill is worked either by hand or horse power, and goes very easily.

For list of agents, see advertisement in this paper. Manufactured by W. O. Hickok, Harrisburgh, Pa.

---

fifty bushels. Ten bushels per tree, then, for sorts especially chosen for productiveness, must be a moderate estimate—amounting to 400 bushels per acre annually. If fifty dollars is paid for an acre of ground, and ten dollars for forty young trees and transplanting, the crops from the ground will pay interest and cultivation till the trees themselves begin to afford remuneration. Sixty dollars, therefore, will pay for a bearing orchard; but admitting its cost to be eighty dollars, and the annual plowing, harrowing and manuring, to be ten dollars annually; the whole yearly cost of the apple crop will be fifteen dollars and sixty cents, at seven per cent. interest. That is, it will be a little below *four cents per bushel,* on the tree. No other crop can be raised with so little labor—an important consideration for a country where wages are so high, where no *annual* planting is needed, and where the annual cultivation, entirely dispensing with hoeing, consists only of a single plowing, and a few subsequent dressings with the harrow or two-horse cultivator. in order to produce the very moderate crop we have supposed, and which we believe would in many localities and seasons be doubled, and be afforded at one-forth the cost, or not over one cent per bushel. It must not be forgotten that all these estimates are made on the supposed basis of thorough annual cultivation, giving an immense advatage over the more common practice of entire neglect.

An Example of Ingenuity.

Those who witnessed the trial of reapers last summer at Geneva, were struck with the extraordinary ingenuity displayed in Atkins' Automaton Raker, which, although failing in its first trial from a defect of material, afterwards, when repaired, performed admirably. J. S. Wright, of Chicago, the proprietor of that invention, gave us at the time, some account of the inventor and of his achievements, and in the last Prarie Farmer we find some additional particulars showing his extraordinary ingenuity and perseverance under adverse circumstances.

J. Atkins was a millwright; and about ten years ago was so seriously injured by a fall, that he has ever since been wholly confined to his bed, and has been unable to sit up more than two or three minutes at a time. Two or three years ago, a reaper was brought into his neighborhood, and an opportunity given him to examine it from his bed for a few minutes. A farmer present, knowing his great inventive skill, told him "if he would only attach a raker to it, it would make his fortune." Being a son of poverty as well as affliction, his friends also being poor, the remark awakened his thought and determination. Various plans were successively formed and abandoned without trial further than a small model, till a year last winter, he struck upon a wholly new arrangement. Having mentally studied out the details, he ascertained by mathematical calculation, before making any part of his model, the size, movement, and effect, of each separate piece; and when the model was completed and put together, every movement corresponded with the calculation to the utmost nicety. Inventors usually make an imperfect model, and afterwards alter and add indefinitely; but this appears to have been completely matured before any portion of it was constructed, and what is extraordinary, the full sized machine is scarcely a variation from the original model. Atkins knew nothing practically of grain-cutting, having from a boy closely devoted himself to his trade until he became a cripple, and he had never seen a reaper but once, and then not at work; yet so correct were his arrangements, that in every case where mechanics deviated from his plans, failure was the result, and his wishes had to be followed in every particular.

Such ingenuity as this should not be permitted to slumber; and although its possessor may be confined to an obscure room by bodily disease, the thoughts of his mind may yet control thousands of strong-limbed and able-bodied men. [See advertisement of Atkins' Self-Raking Reaper in this paper.]

Cross-Production of New Varieties of Wheat.

This is a subject which as yet has scarcely obtained a moment's attention from even our most enterprising and scientific farmers, and we deem it, therefore, particularly worthy of a few remarks. As the same general principles which govern theimprovement of varieties of domestic animals, are applicable in the production of new varieties of plants, and the breeding of animals is so much better understood, we shall, as occasion requires, refer freely to the latter.

There are two leading principles on which the improvement of animals depends, viz, that "like produces like;" and, at the same time, that the progeny varies more or less from the character of the parent. The first principle enables the breeder to preserve in the offspring, at least in a great degree, the good qualities he has once obtained; and the latter, while it admits of some departure, gives an opportunity for improvement occasionally, although the product may more generally fall below the original. Were the first an inflexible rule, the progeny would always be an exact copy of the parent, and no change could ever be effected.

On a similar principle, much improvement has already been made in the varieties of farm and garden plants. An intelligent New-Jersey farmer, many years since, increased materially the productiveness of his corn, by a long continued practice of selecting the finest ears, and from the most prolific stalks. A skilful gardener, by a few years attention in choosing those only the soonest ripe, rendered his Washington peas at least one week earlier than his neighbors! And if every gardener should always select some remarkably fine specimens of turnep, or cabbage, or raddish, for the production of his seed, he might not only maintain but increase the excellence of his crops. On the other hand, as our best sorts of grains and vegetables have already been brought up to a high degree of perfection above their original type, they tend continually to fall below this height, when reproduced from seed, and hence no cultivator can expect to maintain their character if he does not select continually the best, or else procure successively his seed under the name of new and improved sorts, raised by others who have adopted the system of selection.

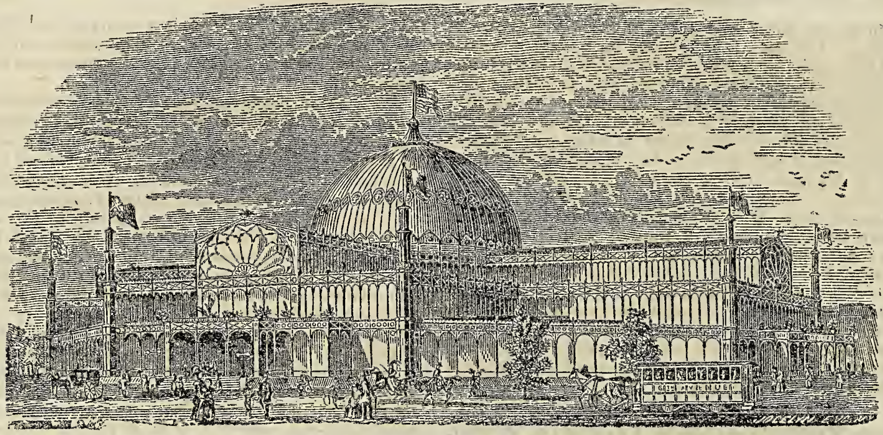
The best breeders of domestic animals find, however, that a simple and continued propagation from selected specimens is quite insufficient for their purpose, and hence they are compelled to resort to the bolder process of crossing, by employing two unlike animals, so that among a numerous progeny, some may be found that shall combine the best qualities of both. This was, in part, the origin of those superb breeds, the improved Short-horn cattle, and of the Anglo-Merino sheep. The same principle in propagation has been applied in the production of new fruits; for while Van Mons obtained some excellent new pears through great and extensive labor, by successively planting the seed of the same individuals; Knight obtained, in a more easy and shorter mode, namely, that of crossing, those celebrated sorts, the Coe's Golden Drop plum, and the Elton and Early Black cherries.

But while so much has been accomplished by cross-breeding in animals, and the subject of cross-production of fruits is by no means neglected, it is certainly a matter of surprise that the application of this process to our farm grains, and more especially to wheat, should never have claimed more attention. Some of our best sorts of wheat appear to have originated merely by the accidental discovery of single stalks growing in the field, and exhibiting a superior appearance to the rest of the crop—owing partly, perhaps, to an accidental variation from the seed sown, or possibly through the influence of the pollen of other sorts.

In order to comprehend something of the importance of improving wheat by crossing, we have only to look at the value of the whole wheat crop of the country. It has been estimated that the aggregate increase in value, in Western New-York alone, consequent upon the introduction and general use of Soule's improved variety, amounts to no less than thirty thousand dollars yearly; and if the whole wheat crop of the United States amounts annually to one hundred millions, the general introduction of a superior variety that would yield but one-hundredth more than the present sorts, or a few quarts more per acre, would be worth a million dollars per year. Now, what state agricultural society is willing to offer five hundred dollars as a prospective premium for the best variety of wheat obtained by cross-impregnation, provided it shall prove worthy of the premium? How could our national government expend more wisely or economically ten thousand dollars, than in premiums for new grains that would be worth a million dollars yearly?

The only attempt we have ever met with on record, at crossing the varieties of wheat, is that of Hugh Raynbird of Hampshire, England, reported in a late British periodical. He selected two distinct varieties—one a coarse red variety, with a short, thick-set ear, and with a short and stiff straw, known by the name of Piper's Thickset, and the other the Hopetown wheat, a white-headed sort, with a long ear and a long straw, and containing more than an average number of grains of a fine quality. The process of impregnation was as follows: As soon as Piper's wheat came into ear, the glumes were opened, and the three anthers removed from each with the point of a needle, when the whole was again very carefully closed. The operation required much time and patience. A few days afterwards, when the pollen of the Hopetown was in a fit condition, the glumes were again opened and the stigmas dusted. But the manipulations of art never equal those of nature; and as a consequence, only a few thin kernels were obtained from each ear. These were, however, planted, and the roots afterwards divided to increase the product. At harvest, all the ears had the red chaff and grain of Piper's Thickset, and many were not changed at all; in some, only the upper part of the ear resembled Piper's, while others resembled the Hopetown in the shape of the ear and the length of the straw. The next year all the seed was destroyed by a fire, except a few ears that had been forwarded to another part of the country—these served to retain the sorts. The results are stated to be so far satisfactory, although several years must elapse before the value of the sorts can be fully ascertained. The following plan is adopted to ascertain the exact product per acre, on a small scale: Two boards, each 6½ inches wide, are perforated with holes to admit a dibble five inches apart, so that each plant occupies a space of half a link, or the 100,000th part of an acre; or by omitting every alternate hole, the space may be increased to two links. When one row is planted, the board is moved forward; in this manner the most minute exactness is secured.

In judging of the value of new varieties of any vegetable production, the mode of intended propagation will have an important bearing. Where, for example, they



Opening of the Crystal Palace.

The Crystal Palace at New-York, a view of which is given above, though yet unfinished, and the articles for exhibition only partially arranged, was opened Thursday, July 14, and the inauguration ceremonies took place. The exterior of the building has a very graceful, airy appearace, and its proportions are so perfect that one is deceived with reference to its size. The effect of the dome, supported by the slight walls of iron and glass, is magnificent. It seems almost suspended in the air and held in its place by the American flag, floating proudly above it. The Palace is enclosed by a neat fence, and when the building materials are removed, will look very tastefully.

are continually reproduced from seed, they should, if possible, possess a degree of permanence to prevent rapid deterioration. It is well known that some celebrated breeding animals have their characteristics stamped with much uniformity on the offspring, while the progeny of others is quite unreliable. So also some plants preserve the identity of the variety under continual reproduction from seed, much better than others. Those permanent sorts will of course be the most valuable, other things being equal. But this difference will be of no consequence whatever with those plants that are propagated by a section of the same individual, as in potatoes by cuttings of the tubers, in fruits by budding and grafting, and in grapes, currants and gooseberries, by cuttings and layers. The *same* individual is here only multipled in number, no *new* one is produced; and hence no *permanent* change can possibly be produced in a variety of the potato by selecting large or small tubers, or by cutting them into pieces. The only influence is *temporary*, affecting the supply of nourishment or moisture to the young plant, or the number and consequently size of the tubers. For the same reason, no permanent change is ever made in a variety of fruit, by grafting into various kinds of stocks, by transplanting into a poor or a fertile soil, by root pruning, applying saline solutions, &c., and no culture given to any variety of the grape, can ever improve that variety or affect its period of maturity; such a change can be effected only by the production of new sorts through the seed.

◆

Successful Trenching and Subsoiling.

Many of our readers have doubtless become acquainted with the successful farming of LINUS CONE, of Oakland county, Michigan, at present an editor of the *Farmers' Companion*. His success depends on his energy and good management generally, but in a very great degree on the perfect tillage given to his soil. In the first place his land, which was hard, stony, and tenacious, was thoroughly cleaned of stumps, stones, and all other obstructions to the plow. The rule was then adopted, never to plow less than about *one foot deep*, for which purpose three strong yoke of oxen were usually needed,—the plow used was a modified double Michigan. He usually plowed but once, depending on the harrow and cultivator for pulverization. In some instances the subsoil plow gave additional depth. A field possessing considerable *descent* was subsoiled 20 inches deep. The descent obviated in a measure the necessity of underdraining, which on more level land would have been absolutely essential. Draining has, however, been adopted to a considerable extent, and provision made for the removal of surface water, by dead furrows cleaned out to a depth of 16 inches, and leading towards the under drains. Now, the result of all this care and labor is, that he has not for many years past, failed to obtain a good crop of wheat, corn, barley, oats, turneps and hay; and in favorable seasons, fruit has been abundant. An upland meadow, which had been deeply subsoiled, yielded, during the past season of severe douth, three tons of dried fodder per acre, while adjoining land, treated in the ordinary way, and more moist in its nature, "did not produce one quarter of this amount." The corn showed no signs of drouth, and maintained its dark green color. The pastures were nearly as green as in spring.

Manure.—Good farmers are not apt to improve largely in one direction and neglect others, and hence we find that this energetic manager saves everything in the shape of manure. A tank is sunk a short distance from the kitchen, and a wooden duct conveys all the soap-suds, wash, &c., into a bed of muck, turf, or rich earth, here deposited, with all animal refuse. This forms manure of extraordinary richness. A box containing several bushels of charcoal receives all the urine, and when saturated is emptied into this tank.

◆

☞ Whoever wishes to harvest the tears of pity must sow unsparingly the seeds of generous love.

Cheap Fences.

In most of the newer portions of the country, the old-fashioned zigzag rail fences still prevail, and where timber is abundant, do not cost one-third the amount required for good post and board fence. Many of them are made wholly of rails, without any protection at the corners, and are consequently easily thrown down by cattle, colts, and the wind. A firmer fence consists in the addition of stakes and riders; but the stakes projecting two feet beyond the fence, the whole occupies a strip of land at least ten feet wide. Placing the stakes *upright* at the corners, and connecting the two opposite ones near the top by means of a loop of annealed or small telegraph wire, is a great improvement, occupying but little more than half the ground required for the former. Another modification, equally efficient and as saving of land, consists in placing the riders, (for which long poles are best,) in a straight line on the top and at the center of the fence, and then placing upright stakes in each inner corner between the rider and the fence, the lower end nearly resting on the ground, and the other wedging closely between the top rail and rider.

The following figures, showing a ground plan of each fence, will serve to make their construction plainer, and to exhibit their several advantages:

Fig. 1

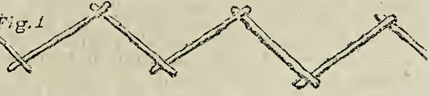


Fig. 2

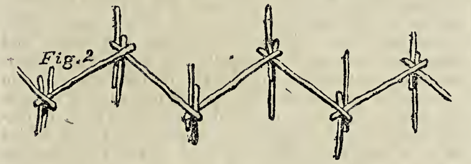


Fig. 3

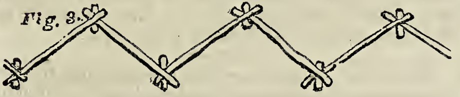


Fig. 4

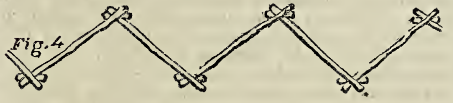


Fig. 5

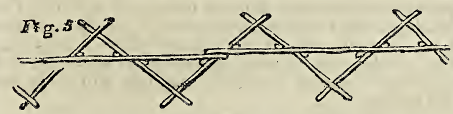


Fig. 1, represents the simple zigzag fence, as seen on careless farmers' grounds, without any stakes.

Fig. 2, is the common "staked and ridered" fence, somewhat substantial, but occupying too broad a strip of land.

Fig. 3, is a better arrangement, with upright stakes placed at the opposite corners, and the two connected and held loosely to their places by a loop of annealed wire.

Fig. 4, is similar to the last, but is better, inasmuch as the stakes are placed in the *acute* corners, and therefore maintain their places better, and brace the fence more firmly than if placed in the *obtuse* angles, as in fig. 3.

In fig. 5, the bracing is still more perfect, but the fence has not the neat appearance of fig 4. In the two last, the stakes need not enter the ground, but may rest merely upon the surface, and hence short pieces of timber, broken rails, or any sticks five feet long will answer, provided they are connected by wire about two-thirds or three-fourths of the height of the fence. These two modifications, then, are more econimcal in construction as well as in the length of the stakes, no holes being required for the insertion of their lower ends. Less strength of wire is needed for these, as the stakes are more securely held in the acute angles.

On Salting Hay and Cattle.

In perusing the last number of the Country Gentleman, I noticed an article on "Salting Hay," which does not, in all respects, accord with my views and experience on that subject. The writer seems to think that the only way to salt hay *evenly and properly*, is to have an extra hand stationed on the *hay-mow*, whose business it shall be to salt each forkful of hay as it is thrown from the fork. The old practice of salting each load after unloading it, he condemns, because salt will not rise up so as to benefit the hay above it, neither will it go down so as to benefit the hay below it, but will remain on top of the hay, and consequently make a small portion of each load very salt, while the bulk of the load will not derive any benefit from the salt.

For years I made a practice of salting all of my hay in the maner last described, and never experienced the least trouble in not having all of it evenly and properly salted. I take pains in mowing away the hay, to spread it evenly over the mow—then apply the salt, say about four or six quarts per ton, which settles down into the hay, thus salting all alike.

For two years past I have adopted another method of salting my stock, which I think is a much better way than putting it on the hay—only taking care to have it put into the mow in good order. When the foddering season commences, I place a trough in the yard where the cattle are kept, and in it keep a good supply of salt. This gives each cow a chance to get just what salt they require, which it is very difficult for them to do when the salt is applied to the hay.

I suppose there are some who have been in the habit of salting their hay, that will be rather incredulous, and not be willing to risk a trial. To such I would say that I have tried it with a stock of fifty cows, some sheep, and young cattle, for two winters past, and I must say they have done better than they used to on salted hay. The usual method of salting cattle once a week through the summer, is not as beneficial to the thrift of animals as supplying them with salt so that they may have it at all times; yet if this will answer in summer, when the feed is green and succulent, why would it not answer as well, and even better in winter, when they require much less salt. By feeding each separate, they are not obliged to over-eat of one to satisfy the appetite for another. A Subscriber. *West Pawlet, Vt.*

Transmutation of Plants.

A very able article on this subject, in the *Pennsylvania Farm Journal*, evidently from the pen of that eminent naturalist, Dr. Darlington, who is well versed in the history of the various opinions which have prevailed during the last five centuries on this subject, gives the following pithy summary of these opinions:

The worthy disciples of this doctrine, in the "good old times," not only believed (with their followers of the present day,) that wheat would turn to cheat, or chess, but they contended that it would often turn a whole series of somersets; going off first into rye, then from rye into barley; from barley into *lolium* or darnel; from lolium into bromus or cheat; and from cheat into oats. They even thought these vagaries could be inverted by by a good soil; and that, with skillful management, the erratic plant might be made to retrograde towards its pristine state, at least as far back as rye!

Root Crops and Straw for Cattle.

Robert Baker, an eminent English Agriculturist, gives the following as a summary of his practice in feeding roots in connection with other food, and which he has found to be very successful. Our readers may derive some valuable hints from it. The advantages of mixed food over feeding single substances to cattle are well known:—

"The mangold wurzels, or Swede turneps, are plucked (not sliced) with a machine constructed by myself, of which many are now in use in this district, and consists of a revolving cylinder, into which hooks are inserted, acting against a row of knives to facilitate the operation, and which *plucks* the roots of Swede or other turneps, and mangold wurzel, into small pieces from the size of an egg downwards, thus avoiding the sharp edges produced by turnep slicers, and preventing the choking of the animals, as well as facilitating the readily mixing them with the cut chaff. The latter is cut into 1½ inch lengths, in the proportion of one part of hay to three parts of straw, and is moistened by an application of linseed meal that has been previously steeped forty-eight hours in cold water, in the proportion of 1½ lbs. to 2 lbs. for each bullock, to which is added 4 lbs. of barley-meal, sprinkled in the chaff. The morning meal is prepared the evening previous, by mixing one bushel of the plucked roots with about two bushels of cut chaff, prepared as above; and in the morning the evening meal is prepared in the same way. If it is found the bullocks will eat more, it can be increased by adding chaff only, or with a further admixture of the roots. The advantages of this mode of feeding, will, upon experiment being made, become at once apparent. The bullocks will thrive faster, and will never be relaxed, as is too frequently the case when fed upon the roots by themselves, and the quantity of the latter per diem may be exactly apportioned. They will also eat the chaff cut from straw without hay, if found desirable. But when fed upon the roots alone, they will not rest satisfied until they have had their fill, and then will refuse chaff cut from straw altogether. The stomach of ruminating animals is larger than that of other animals, and requires to be filled before they will lie down to rest; and the large quantity of roots they will consume (if allowed to be fed without restriction) becomes absolutely injurious to them, while 50 per cent. more will be consumed with less benefit to the animals.

If oilcake is bruised and steeped in the same way, it will be found more beneficial than when given alone, and the whole of the tnuritive properties will become extracted, as will be at once perceived by the difference of the manure; but the latter, of course, will at the same time not be so valuable.

With store stock one bushel of roots with cut chaff is sufficient, and one or more pounds of linseed meal per diem may, if required, be added; but if an attempt be made to keep them upon one bushel of roots, given separately, they will pine after more, and remain constantly restless and dissatisfied. The vegetable food may also be "marshalled to meet the jaws," and an exact calculation made of the extent of time they may be required to last."

Stripping the Osier.

I saw in the October No. of the *Farmer*, an inquiry, "if there is a machine to take off the bark of the Osier, or basket willow, faster than by hand." I have never heard of a machine that will do the work without the assistance of the hand; but I herewith send you a little instrument which is used in Germany and wherever the Osier is prepared for baskets. It is very simple—nothing more or less than a round stick of hard wood about an inch thick, and a foot long. Quartered about half the length of the stick, and two opposite quarters cut off, so that it will leave a sharp edge on both the remaining two. Take the stick in your right hand, insert the willow with the left, in the slit; press the thumb and fore-finger of your right hand, and pull the willow through, and the bark is loose. But there is one thing that must be considered—the time or season when the bark ought to be stripped off. If you prepare your willows for market, you have to cut them in the spring when the sap starts freely, as soon as the buds begin to swell. Warm, sunny weather is best. As fast as you have a little bundle stripped, cure them, by laying them in the sun until they are perfectly dry; then you may tie them up in bundles, three feet round the butt end of the bundle, and stow them away in a dry place, else they will mould or mildew and will not be good. They should be kept free from dust. With a little experience any one will find out how to do it as well as when the time for cutting is past. None but one year's growth are used for weaving the baskets; but small two year's growth are used for bottom sticks, and larger ones for handles. P. SCHMITZ. *Harmony, Jan.*, 1853.]—*Wis. and Iowa Farmer.*

Neutralizing Offensive Odors.

The North British Agriculturist furnishes a statement of LINDSEY BLYTH, in relation to a very successful experiment for destroying a most offensive smell in a stable, arising from the decomposition of urine and dung. He tried the mixture of Epsom salts and plaster of Paris, (gypsum)—"the most wonderful effects followed—the stable keeper was delighted." Previously, the stable was damp and unwholesome; and if closed for a few hours, the ammonical vapors were suffocating. After sprinkling the sulphates underneath the straw, and along the channel of the drain, the smell disappeared, and even the walls became drier. He recommends as an economical preparation for this purpose and for sewers, magnesia limestone dissolved in sulphuric acid, (forming sulphate of magnesia or epsom salts,) with a portion of super-phosphate of lime (made by dissolving bones in sulphuric acid)—these, at the same time that they retain the escaping ammonia, also add greatly by their own presence to the value of the manure.

◆

RAT-PROOF GRANARY.—A late paper gives the following mode of rendering granaries rat-proof, proved by a successful trial of ten years, and founded on the fact that *tar* is particularly offensive to these little scoundrels. The studs of the outside walls of the granary are "set in," so that a cat may pass round between these walls and the outside boarding of the barn. The lining to the floor is first laid; then the first siding board round the bottom; then, for convenience the floor is finished, and afterwards the siding or walls completed. Tar is placed along the edge of every board as it is fastened to its place, and a copious application of tar given at the corners, where rats are most apt to do their tunnelling. Let the door-sill be made of hard-wood scantling, and the door be always kept shut, and rats will never see the inside.

◆

THE GREATEST MILKER WE KNOW OF FOR A TWO-YEAR OLD HEIFER.—Mr. Daniel B. Haight, of Dover Plains, Dutchess county, writes us as follows: "I can show you a fine two-year old Exeter heifer, when you visit Dutchess, which I hope will be soon. She has given *twenty quarts of very rich milk per day*, and she has a fine heifer calf got by Mr. Sheafe's two-year old bull."

"Exeter," referred to above as the sire of this extraordinary heifer, is registered in the English Herd Book as the "Duke of Exeter" (10,152.) He was imported in 1849, by Mr. J. F. Sheafe, of Dutches county, and was purchased at his sale of stock in August, 1850, by Mr. L. F. Allen, of Black Rock. Thus far he has proved one of the best stock getters ever brought to America. —*Agricultor.*

The Dairy.

Manufacture of Cheshire Cheese.

(Continued from page 215.)

The "breaking" and "gathering" of the curd is the next process. This used formerly to be done by means of the hands and skimming-dish (a practice still continued in some dairies); but the *curd-breaker* is now generally made use of for this purpose. It is made of wire-work, in an oval form, and has a tin rim round it about an inch and a half broad. This wire cuts the curd, by being passed through it perpendicularly, *very* gently at first, and in different directions, so that the whole mass is separated in very small portions. The length of time required for the operation depends upon the quantity of curd; for a 60 lb. cheese the operation often takes twenty or twenty-five minutes. After this, the curd is left for a quarter of an hour to separate from the whey, and, if the weather be cool, the tub is covered to retain the heat. The curd having separated, which it does by sinking, a portion of the whey at the top is then taken out by the portable brass or tin pan before alluded to, being *pressed* into it, and emptied into the *set-pan*. The curd is then gently broken by the dairy-maid and her assistant passing their hands down to the bottom of the tub, and buoying up a portion of the curd at each time to the surface, or by again using the curd-breaker. The curd having been brought to the top, is easily seized, and separated into smaller portions, and the whey thereby released. This operation takes about half an hour. After the expiration of another (or so soon as the curd is considered sufficiently settled—for there is no saying to five or ten minutes how long each particular interval of rest should be), more whey is taken out, and the curd afterwards drawn as much into one half of the bottom of the tub as its loose texture will admit of.* Upon the curd is then placed a semi-circular board adapted to the size of the tub, with a weight of about 30 lb. placed upon it. This board is perforated with holes, about half an inch in diameter, to allow the whey to escape through. The tub is now set three or four inches atilt to drain the whey more readily from the curd, and to admit of its being collected and carried off. The skimming-dish is again required to lade out the whey. The whey, on its way to the set-pan, is passed through a sieve, to collect any curd which may happen to be floating in it. This curd is what is called *slip curd*, which by some is not returned to the tub, for the reason I have before stated. The weight and board are shortly taken off, and such part of the curd as has been squeezed from under them is again collected on one side, and a heavier weight (say 50 lb. or 60 lb.,) applied as before. As the whey escapes from the curd it is laded out. In the course of a quarter of an hour the board is again removed, the curd cut in intersections of six or eight inches apart, to assist the discharge of the whey, and the board, with additional weights (about double the last), again applied. Some dairy-maids now add the slip curd. The weights are again increased if it be thought necessary; observing always to *let the pressure which is applied be gradual, and regulated by the degree of compactness of the curd*, for if this is not attended to now, as well as afterwards, a considerable portion of butyraceous matter will be forced out and the cheese of course deteriorated.

The curd is again cut into square pieces, taken out of the cheese-tub and broken a little by the hands as it is passed into the "thrusting-tub." (In some dairies a large sized cheese-vat, in others a willow basket is substituted for the thrusting tub.) In this the extraction of the whey is afterwards continued by the application of "the screw," of which there are two or three kinds, but all on the same principle. The old plan of *thrusting*—and from which the *term* is no doubt derived—was by means of a pole four or five yards long, fixed at one end into an upright post, whilst at the other was seated a lusty lad or a man, who kept regularly pressing down the pole upon the curd, the pole acting as a lever. Both poles and men are now almost entirely expelled from the Cheshire dairies; and the *screw* is also likely to be superseded by the "lever press." The advantages of this over the screw are *that it sinks by its own action with the curd—any degree of pressure required can be applied and gradually increased, and less attention is necessary;* whereas the presure from the screw is sudden and uncertain, and having no self-action, requires the dairy-maid's assistance every five or ten minutes to render it effectual.

The "thrusting-tub," in which the curd has now to be pressed, is round, and is perforated with holes at the sides and bottom for the whey to escape through. Before the curd is put in, a "cheese-cloth" of the coarsest kind, about one and a half yards long and a yard wide (or of dimensions sufficient to contain the curd), is placed in it.* In this the curd, after being broken, as before stated, is enveloped, and a "sinker," or strong circular board, which fits the inside of the tub, placed on it. Upon this the screw (or lever press, if used) is let down, and the power gradually applied.

To assist still further the discharge of the whey, long iron skewers are introduced through the perforations in the tub, with their points directed upwards, so that when the skewers are withdrawn there is a drain made for the whey to follow. These skewers do not remain in more than five or ten minutes; the pressure is continued a little longer. The curd is now cut *through*, in intersections of two or three inches apart, with a large *dull* knife, so as not to injure the cheese-cloth, and the edge or corner of the curd is cut off all round, and placed in the centre. After this the pressure is again applied, and gradually increased, and the skewers introduced and withdrawn as before, after the lapse of about fifteen or twenty minutes. The curd is then taken completely out of the tub, cut into four or five pieces, and each piece broken separately with the hands to about the size of two or three inches square. A clean dry cloth is made use of, the curd folded in it, and again pressed and skewered. These operations are repeated until the whey is sufficiently extracted to admit of the curd being *salted*, which is the next part of the process.

If the milk is set together at six o'clock, and the coagulation takes place in an hour and a quarter, the breaking, gathering, and preparation for salting is generally accomplished by eleven or twelve o'clock.

This is merely mentioned as some guide to the *new beginner*, who may not be able to judge from the state of the curd when it is fit for salting. I may here observe that it is the practice in some dairies to salt the curd, while, in my opinion, there is *too much whey in it*.

The *quantity of salt* used is regulated by some old custom, or by the fancy or taste of the dairy-maid, and with about as good a chance of correctness as that with which she regulates the temperature of the milk by the touch. That clever and experienced persons may determine the proper quantity of salt in this way tolerably well, I admit; but there are many others who *fall into error*, and all *for want of some fixed rule*. If there be a certain proportion of salt which would answer the purpose best, which there doubtless is, why not ascertain and adopt it?

"In all dairies," (says Mr. Wedge, the author of the original 'Report of the Agriculture of Cheshire,' written many years ago, but still equally true) "the same points are admitted to be essential, but although the means of obtaining those are, upon farms similarly circumstanced, so far alike, as to differ materially in the minutiæ only, yet upon these minutiæ much of the art of cheese-making depends.

---

* At this stage, it is the practice with some dairy-maids, when they suppose the curd is colder or more tender than it ought to be, to return a few gallons of whey after it has been heated over the boiler in the brass pan into the tub again, to assist the discharge of the remaining whey. If, on the contrary, the curd is found warmer than is intended or desirable, which is sometimes the case in hot weather or during thunder, a few gallons of cold water are applied to prevent the curd becoming tough. These inconveniences would, in my opinion, seldom if ever happen if a thermometer was used at first, and the proper heat at that time adhered to.

* *Cheese-cloths* are *linen*, of a rather closer texture than canvass, and made for the purpose. The coarse kind are sometimes termed *screw-cloths*.

"That an exact uniformity does not prevail in every part of the process, is no wonder; for there is not any of the business which is conducted in a dairy which tends to chemical exactness. Where there is no precision, there can be no just comparison; and where no comparison can be made, there exists no foundation for an attempt at uniformity. *The degree of heat at setting the milk together is never measured, the quantity of steep is guessed at,* and its quality not exactly known; *the quantity of salt necessary is undefined, and the sweating or fermenting of the cheese, when made, is accidental.*"

As an antiseptic, a certain quantity of salt is necessary; it is the same in this respect with cheese as it is with butter or bacon. There may be, and no doubt are, differences of opinion, both amongst makers and consumers of cheese, as to the degree of saltness which is best; and it may be necessary, in order to suit the palates of the *many,* that there should be a *variety.* I am willing to admit the force of the argument, so far, that there might be these shades of difference in different dairies, but think that they ought not to exist in one and the same dairy. Each maker strives at uniformity as regards the *thickness* and *color* of his cheese, and would like also to attain uniformity in flavor if he could. Why not, therefore, measure or weigh the alt before using; regulating the same by the quantity of milk or the weight or quantity of curd?* The former would easily be ascertained by means of a *gauge,* or graduated rod, which any farmer might make for himself, to suit his own cheese-tub. The way to make it would be to pour into the tub a gallon of water, or any liquid, and then to note its height, and mark it on the rod. This being done, put in another gallon and again mark the height, and so on until the tub is full; taking care afterwards to introduce the rod into the *same part of the tub,* as the bottoms are not often level.

It has generally been considered that a gallon of milk (supposing little or no cream has been taken from it) will produce upon an average of the season 1 lb. of saleable cheese; that is, when the cheese is four or five months old. In autumn there is always more curd from the same quantity of milk than at any other part of the season.

During wet weather there will sometimes be more milk than usual, though not a proportionately greater quantity of curd. An experienced dairy maid soon detects these different results, and makes allowances accordingly. I have met with no dairy maid who regularly weighs the salt; but a highly respectable farmer, whose wife makes a first rate cheese, has given me the weight used in his dairy, as near as the same can be *computed.* It is as follows:—

	lb.		lb.	oz.	
In March and April their cheeses average about	30	and about	0	10	of salt is used.
In May, June, and July,	70	"	2	0	"
In August, ...	60	"	1	12	"
In September,..........	50	"	1	4	"
In October and November	30	"	0	10	"

In the above instance it will be seen that more in proportion was used in summer than at other times, and that the average is one lb. of salt for 40 lbs. of dried cheese (or say forty gallons of milk).

I was favored with an account from another dairy in which, to oblige me, the salt *for once* was weighed. For a cheese which weighed 46 lbs. a few days after making (say 42 lbs. at four months old) 1 lb. 1 oz. was used. This is also after the rate of 1 lb. of salt for 40 lbs. of dried cheese, and was said to be the quantity uniformly used throughout the year in this dairy, which consisted of about forty cows.

A third account is from a dairy of sixteen cows: the quantity of salt used was generally about 1 lb. for 45 lbs. of cheese; but the dairy-maid made a trial last year with one cheese, using only three-quarters of a pound. The cheese was made at the beginning of June, and when weighed in the middle of September was 42 lbs. This cheese was admitted to be better than the others in the same dairy.

The salt termed the "middle grained" is the kind generally used; but some use "fine." Before applying it the curd is cut into three or four equal sized pieces, and each of these is broken into smaller pieces by hand, or is passed *once* through the curd mill.* The salt is then scattered over it, and the "breaking" continued either by the hands, the curd-mill, or both, until the salt is well intermixed, and the curd perfectly crumbled. Each portion as it is broken is put into the cheese-vat, in which has been first placed a clean and rather finer cloth than was used for the previous process, and the curd is compacted as much with the hands as possible. To admit of the curd being properly pressed, it is necessary to put it into such a vat as it will *overfill* by at least two inches. It is also rounded up a little in the middle. The cloth is then brought over it, and tucked in at the edges of the vat with a small wooden knife or other dull-edged instrument. In order to support the outside of that part of the curd which is above the vat, and to keep it in proper form when the press is applied, a tin or zinc hoop or "fillet," the edges of which are rounded off so as not to cut the cloth, and the ends lapping over and unattached, so that the same fillet will do for different sizes of cheese, is introduced round the inside of the top of the vat. The "fillet" thus placed sinks with the curd, and having small perforations in it, the emission of the whey is effected through it as through the perforations of the vat. Since it has become the fashion to make Cheshire cheeses *thicker* than they used to be, it is no unusual thing to see fillets six or eight inches broad.

The vat is now again placed under the screw or lever press, and the skewering is also continued. The pressure is increased at intervals, and the skewers inserted in fresh places to accelerate as much as possible the discharge of the remaining whey or "*thrustings,*" as it is now termed.

In the course of an hour from the time of salting, the curd is taken from under the screw or lever press, and out of the vat, for the purpose of being turned upside down, which is done on a table. In the first place, the angles of that side which was topmost in the vat are cut off; a circular piece, two or three inches deep, is often also scooped out of the centre, and both are broken small with the hands and rounded up in the middle. The cloth being drawn over the curd, the vat is then turned down upon it, and re-turning the vat with the curd in it, the other angles and centre part of the curd are broken in a similar manner: after which the tin fillet is put on, and the screwing and pressing is continued as before for about half an hour or an hour. It will, probably, be two or three o'clock in the afternoon before the curd (or cheese, as it may now be termed) *is got under the press;* that is, when it is removed from the screw to the stone press: but where the lever press is used instead of the screw, which, I think, might always be advantageously done, all the change that will now be required is a little more weight at the end of the lever.

Before turning the cheese for the purpose of placing it under the press, it is usual to prick it perpendicularly down with a skewer in several places, for the purpose of making drains for the whey, after having been so turned. A clean cloth is applied, and where the lever press is not used, the cheese is put under one of the lightest of the other kind. A pressure of six, eight, or ten cwt., according to the size of the cheese, will be sufficient. This is generally accomplished by about two or three o'clock in the afternoon. Smaller skewers are now used, and remain (by removing them occasionally into fresh places) until about four o'clock: they are then withdrawn, but the cheese remains half an hour longer undisturbed, to allow the whey to drain from it. It is then, or some time in the evening, turned, a clean cloth is put over it, and the pressing continued. If the lever press be used, the weight may be a little increased.

---

* Since writing the above I have learnt that a farmer in South Cheshire, well known for his introduction of improvements in agriculture, has commenced the system of weighing his curd previous to salting it, and he says he uses salt in the proportion of 1 lb. to 42 lbs. of curd. He also informs me he sets his milk together by a thermometer, and at a temperature of 76° or 77°.

* The *curd-mill* is of recent introduction, and it is only in a few dairies that it is met with; some dairy-maids highly approving, others objecting to it. I think it will soon be more generally adopted, as it effects a saving in time, and breaks the curd more regularly than it can be done by hand.

On the *second day* the cheese is generally turned twice or three times; it is also skewered, and clean cloths are used each time of turning. I would observe here that if any of the cloths are used again before they have been washed and dried in the open air, great care should be taken that they be well *scalded*. The presses used for at least the two first days, and, if possible, during the whole process, should be situate in the dairy, kitchen, or some other moderately *warm place*, otherwise the whey will be longer in discharging, and more liable on that account, from the acidity which it soon acquires, to injure the flavor of the cheese. Another advantage of the lever press is that in cold weather it may be easily removed to a sufficiently warm place, which cannot be the case with common presses. These common presses are chiefly made of one square block of stone fixed in a wooden frame, but are also made of wooden boxes filled with *slag* or other heavy material. They are generally fixed by the walls of the dairy, for the purpose of being stayed to them, and being there most out of the way; when there is not room in the dairy or kitchen, they are placed in the salting room or pantry, which latter places are often much too cold for the purpose, as the whey seldom gets thoroughly extracted when the presses are in cold situations.

On the *third day*, the cheese is again turned once or twice, but ought not to require any skewering. The heaviest press is now had recourse to, and for a cheese of 60 lbs. or 70 lbs. weight about 30 *cwt.* will be pressure sufficient; but some dairy-maids apply as much as two tons, their heaviest press being that weight. A cheese-press of this weight, made of a block of red freestone, would be 3 ft. 2 in. long, 2 ft. 8 in. wide, and 3 ft. 2 in. high.

On the *fourth day*, it is usual in most dairies to discontinue the pressing, but in others it is continued for a day or two longer.

The cheese is then removed to what is called

The Salting and Drying Room.—Sometimes these are distinct apartments, but more generally one room suffices for both purposes. The salt can now, of course, be only applied *externally;* and the good, *if any*, effected is to harden the coat of the cheese. The cheese I have before alluded to, as having been made with three-quarters of a pound of salt, and which *was much above an average in quality*, was removed, as an experiment, *direct from the press to the cheese room.* I am inclined to think this is the better system, or at least that a great deal of the present labor of the salting-house might be dispensed with.

It is obvious, from the practice in this dairy, that it is considered necessary for the cheese to remain in salt longer in the middle of summer than at other seasons.

After this salting, the cheese is well wiped or washed, has a clean bandage put round it, and continues in the same room, or an adjoining one, on wooden shelves, for the purpose of being *dried.* It is turned once a day, and remains until it is considered sufficiently dry for being removed to the *cheese-room.* The length of time for keeping cheese in the "drying-house" varies from seven to twenty days; and is regulated by the temperature of the weather, or the *cheese-room* to which it has to be next removed. In hot weather, and especially if the cheese-room is exposed to the heat of the noon-day sun, the change from a *too cold drying-house* (as many often are, except perhaps in the middle of summer) to a too hot cheese-room, is calculated to cause *cracks* in the cheese, which said cracks have from time to time to be filled up by the application of bacon-fat, or whey-butter, otherwise mites would soon be generated, and the appearance of the cheese detracted from. To prevent this cracking as much as possible, the salting and drying houses have rarely if ever the windows opened, and drafts or currents of air are thereby prevented. This precaution is also adopted in the cheese-room; and, in addition, the light is excluded either by a shutter or *blind*, as I have before stated.

The cheese I have before alluded to as having been made without any *external salting*, as an experiment, and which *was taken direct from the cheese-press to the cheese-room*, was made in the beginning of June, and at the end of September was ready for the *market.* The quality of the cheese was better than that made in the ordinary way, and all the labor of the salting and drying house was saved. My own impression is, as I have already hinted, that the drying-rooms are often *too cold;* and that if it is found to be desirable, as perhaps it may be in some dairies, to continue the use of such drying-rooms, the heat should be kept as near as possible at from 50° to 55°. In concluding my remarks on this room, I must not omit to observe that it is necessary the cheeses should remain *bandaged*, in order to prevent their bulging, and also that they should be turned over once a day. If one cheese be made daily, one will consequently—in the course of a certain time after the season of cheese-making commences—have to be removed every day to the *cheese-room.* When taken to this room, the situation of which I have before described, it is usual to scrape and clean the coat of the cheese, and to place it in the first instance, in the coolest part of the room, often for a few weeks upon shelves or benches, which are cooler than the floor, subsequently upon the coolest part of the floor, and ultimately upon the warmest part. It is usual to continue the bandage or "fillet" for several weeks after the cheese gets into this room, and indeed in some dairies until it is sold. It is also usual to turn the cheeses, and wipe them with a cloth daily, for at least three or four months, and every alternate day afterwards; and when there are any symptoms of cracking, bacon-fat, hogs'-lard, or some other fatty substance, is applied. The floor of the cheese-room is generally covered with dried rushes, or a coarse grass resembling rushes, called "sniddle," or wheat-straw. The floor should be *level*, otherwise the cheeses will not be kept easily in shape; and should be well washed with hot water and soft-soap about twice a year. The temperature of the cheese-room should, when attainable, range between 60° and 65°. When this is the case, the "first make" will generally be ready for the factor by September or October, and the "latter-make" by December or January; but in consequence of many rooms being badly situated and imperfectly heated, the farmer very often does not get his cheese into the market until two or three months after these respective periods. The object gained in having the cheese-room about the temperature I have named is three-fold; the perfect fermentation and ripening of the cheese, the reduction of labor, and the quicker return of *profit*.

It is usual in this county to sell the cheese by what is termed the *long hundred* (120 lbs. to the cwt.), but the factors often require 121 lbs. The price varies with the quality of the article, the state of the market, and the size of the cheese, for large cheeses always sell for more per lb. than smaller ones. There is perhaps nothing more difficult to ascertain than the average price of cheese, inasmuch as both farmer and factor make the price a secret. The highest I heard of last season was 72*s.* per cwt. of 120 lbs., or a little more than 7*d.* per lb.; the lowest would probably be about 40*s.* or 45*s.*

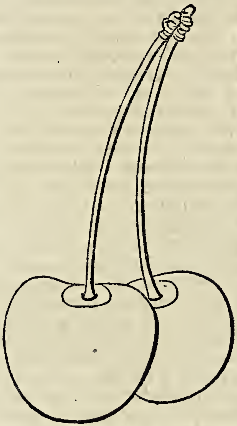
Conclusion.—I am aware that a great deal might still be said bearing on this subject. The various defects of cheese, the great difference in the flavor, the effects of different pasturage and food, and various other matters, might be discussed, but it is considered this essay is already too long and tedious. I cannot, however, close my remarks without expressing my admiration of the industry, cleanliness, and frugality of the Cheshire dairy-maids. Their labors are great indeed; their cleanliness not to be surpassed; and to their good management it is, that the landlord may often consider himself indebted for the *whole of his rent.*

Horticultural Department.

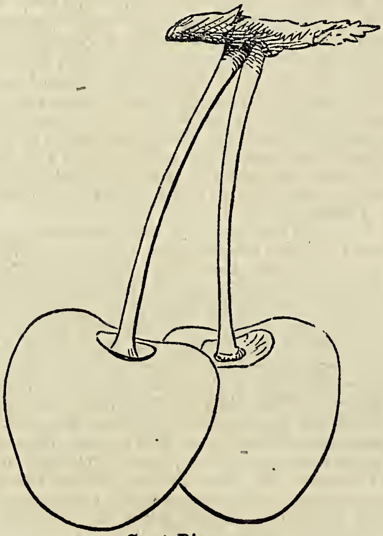
Fine New Cherries.

The following varieties, not yet generally proved through the country, give so strong a promise of value where they have been tested, that they deserve a wide dissemination at least for further trial.

Champagne—Raised by **Chas. Downing**, at Newburgh, where, after several years bearing, it proves to be very hardy, a great and regular bearer, and remarkably free from rotting and blight. Its name was suggested by the peculiar and lively mingling of sweet and acid which its flavor possesses. It does not attain its best flavor until *very fully ripe*. The fruit is medium in size, roundish heart-shaped, always slightly angular or one-sided. Color light red; stalk of moderate length and size, set in flat depression. Season medium, hangs long on the tree. On the whole it is believed that it will deserve a place by the side of Downer's Late, for hardiness and general value.

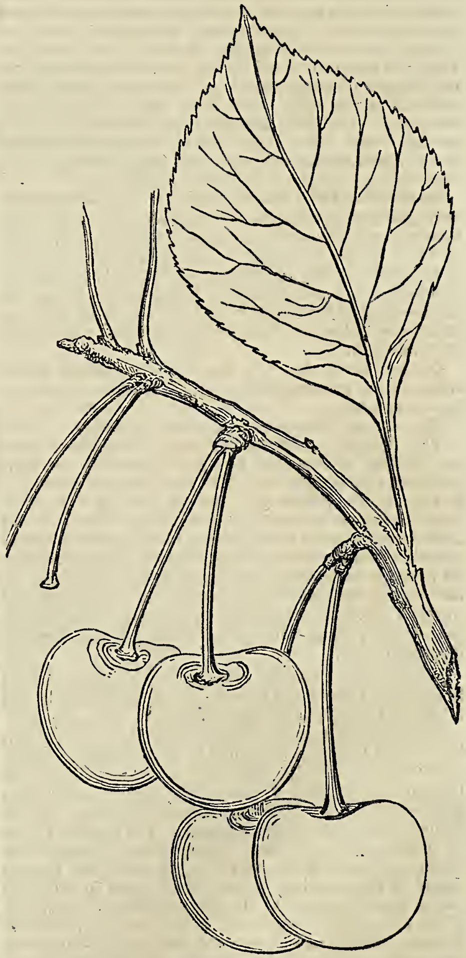


Champagne.



Great Bigarreau.

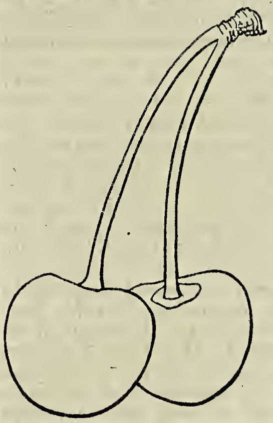
Great Bigarreau—This is a temporary name given by the late **A. J. Downing**, to a superb cherry grown on the estate of **L. M. Ferris**, of Coldenham, Orange co., N. Y. The tree was imported some 25 years ago, with several others, from France, and the true or original name has not been discovered. This cherry was pronounced by **Downing** as "unquestionably the largest and most beautiful of all cherries," and **L. M. Ferris**, who has long known it, and who is a good pomologist, assures us that its flavor is not surpassed by that of any other cherry known. It has not yet fruited with us, but trees growing from grafts cut from the original tree, possess great vigor and apparent hardiness. The following is a brief description of the fruit: Very large, considerably larger than Black Tartarian, which it somewhat resembles in quality; oblong heart-shaped, high shouldered, surface smooth, deep red, becoming nearly black; stem thick, rather short, deeply sunk. Ripens closely after the Black Tartarian.



August Duke.

August Duke—Raised by **Henry Vail**, of Troy, N. Y., and valuable for its lateness, maturing three weeks after Downer. Its habits are that of a Duke, a brighter red than the May Duke, and greatly exceeding in productiveness the Late Duke, the fruit hanging in thick clusters along the branches. It is obtuse heart-shaped, very regular, and bright, rich red in color, tender, closely resembling the May Duke in flavor.

Roberts' Red-Heart—Although not a very new cherry, the merits of this valuable sort were not well known till lately. Although neither large nor showy, its excellence, great and uniform productiveness, and freedom from rot, place it high on the list of cherries. It originated at Salem, Mass.; it is medium size, roundish heart shaped, pale red or amber, mottled deeper; suture distinct, flesh white, sweet, with a fine flavor; season medium.



Roberts' Red-Heart.

◆

Black Knot on the Plum.

It is curious to perceive the different conflicting opinions, adopted from single observations by different cultivators, or from several observations, all under the same particular local influences, in relation this disease of the plum tree. A correspondent of the New-England Farmer has discovered, as he thinks, beyond the chance for a mistake, that these excrescences are the work of insects, as he has uniformly found two different species to inhabit them. One was the curculio; the other a small moth about the fifth of an inch in length. He was puzzled for a time to know which was the real culprit; but as the excrescences appeared a month after the curculio disappeared, he concluded that the mischief came from the work of the moth. Now, what will he say when we inform him that the present season some of our trees have been profusely covered with fresh excrescences almost by the first day of the summer months, and before the curculios had fairly got their cutting tools ready? Again, how are we to account for the circumstance, that in no instance whatever, on our own grounds, have we ever found the slightest trace of an insect in the excrescences, until *months after* they had formed? If insects are the cause, they must be the cause always, and in all places; but if half the plum trees affected have none at all, it seems hard to convince the insect theorists that their opinions are fallacies. The last number of the Horticulturist contains a communication favoring the opinion that the excrescences are caused by still another insect, the *Membracis bubalus*, a tree hopper, or hemipterous insect of the Cicada tribe, which punctures the wood and deposits its eggs in rows in the young twigs. The same difficulty exists here as with the other insects, namely, the knots generally appear (in other localities,) where the closest scrutiny has failed to detect any insect whatever; nor is this all—we have repeatedly observed these rows of deposited eggs in the shoots of the plum and cherry, which remained for several years, with no other result than the scars left by the punctures; and although we have repeatedly seen these marks, and have also been sufficiently troubled with the black knot, it so happens that the two never came together on the same tree.

◆

Watering Trees and Plants.

Many cultivators have very indefinite and vague notions on the subject of watering plants; and hence we often see water given when it is not wanted, and again, when most needed, it is not unfrequently applied in such a manner as to produce no benefit, sometimes positive injury. The great secret of success in watering, consists in furnishing just such an amount of artificial supply as the plant needs, without flooding on the one hand, nor stinting on the other. This must be judged of by the actual condition of the plant at the time. If, for example, it should be in a nearly dormant state, when it throws off scarcely any moisture, very little water is needed. Young trees, for instance, which are set out in spring, sometimes remain several weeks without growing, and to flood them at this period, would tend more to cause decay than growth. It sometimes happens that such trees dry up at the top or branches while the roots are kept deluged, in consequence of the want of circulation from the absence of leaves. In these instances it is better not to apply much water, except to the stem and branches themselves; and this, if often repeated, will directly impart moisture to the tree, and not unfrequently stimulate it into a growing state, when other means would entirely fail; because in the absence of circulation, the moisture is applied precisely where it is wanted.

We have known cases where young trees have been actually destroyed by injudicious watering. Again, we have seen trees perish for want of watering. In the latter instances, growth had already commenced, and the young leaves were rapidly pumping the water from the soil up through the roots and stem, and a larger supply was needed than could be obtained. A plant in a state of rapid vegetation will consume or throw off into the air more than ten times as much water as a dormant plant.

When artificial watering is given, the operator should ascertain whether the supply descends sufficiently to reach the roots for which the benefit was intended. It is by no means an uncommon error to pour water on a hard and baked surface, without descending even a single inch below, nor within half a foot of the roots of the plant. Such waterings will of course do more harm than good. It would afford instruction to such superficial operators, to throw up a little of the soil, and witness the dry, ashy earth beneath the thin moistened crust. Water will penetrate freely into a mellow and well cultivated surface; but the removal of a few inches, to be again replaced after watering, will be advisable in most casses where the roots lie deep in the soil.

A hint as to the best time of day for watering, may be derived from an observation of the condition in which natural watering by rain is given. One reason why this penetrates the soil so effectually, is the moist state of the air, and the shading of clouds, preventing immediate evaporation, and connected with the even and gradual application which showers impart. Hence, watering under the hot rays of the sun should be avoided, evening usually proving the most advantageous time for this purpose; and if several light and successive applications are given, the moisture will penetrate more deeply into the soil.

Mildew on the Grape.

Many years since, when the practice was common of raising the hardier exotic grapes in the open air, and more especially the Early White Muscadine or White Sweetwater, we often had occasion to observe the influence of proximity to the soil in preventing mildew. It frequently happened that every bunch three feet high or more, was badly mildewed, while such as chanced to lie within a few inches of the surface of the earth, were often entirely free from its influence. Whether it was owing to any effect of the soil, which the rains dashed in minute quantities upon the fruit, or to some other cause, was never ascertained, but the subject is certainly worthy of further investigation. We have often heard on the other hand, of grapes escaping the mildew, which were trained high on trees; and in a late number of the Western Horticultural Review, we perceive a statement of S. Venable, of Shelby county, Kentucky, that a German near Evansville, observing that grapes within a few feet of the ground were more or less affected with mildew, trained some of his vines twelve or fifteen feet high, and they produced fruit of the best quality, entirely free from disease. In another instance, a vine trained on the walls of a house, to a height of eighteen feet, bore fruit in great abundance, without a blemish. It is not probable that any effectual remedy will be discovered for the mildew on the foreign grape, other than cultivation under glass; but the subject is one of much interest for investigation and inquiries may lead to important results in the management of the native varieties.

Remedy for Black Knot.

In answer to repeated inquiries for the best remedy for the black excresences on the plum tree we can only repeat what we have before given—excision with the knife, when the disease first appears. "But, our trees are all covered with them, and we should have to cut away the whole tree!" Very well; your trees have reached this condition through neglect, and the best thing is to root up and burr at once all such radically diseased individuals, which is certainly no worse than death by the knot, which is inevitable at so late a stage. We have practiced the remedy of cutting for many years past, and have succeeded in keeping the disease in complete check, without ever (except in one instance) being obliged to remove an amount equal to the growth of the tree in one year. But even if it were necessary to destroy half the trees with the knife—this would be better than to have them wholly destroyed with the excresences, to say nothing of the singularly *ornamental* effect, which we have sometimes witnessed, of a dozen half dead and fungus clad trees, occupying conspicuous positions in the garden. Salt water or a solution of copperas, has been recommended as a wash for the wounds when the excrescences have been cut out of large limbs, and chloride of lime may prove still better. As for the "trouble" or labor of continually cutting, we have never found it one half the labor of cultivating properly, and are well satisfied that so easy and generally effectual a remedy is at our command.

Destroying Trees.

A thriving farmer, who had just discovered the loss of a hundred newly transplanted peach trees by the mice, said to the nurseryman who furnished them, "This is a hard loss for *me*, but it will help *you nurserymen!*" A late paper of high character utters a similar opinion, when describing the losses of young trees by bad pruning and other mismanagement—"no wonder that the business of nurserymen is continuous and thriving!" Nothing can be more erroneous. The great increase in the nursery business is owing, not to continued failures by purchasers, but to the improved cultivation which the trees of late years receive, giving promise of a full remuneration for the outlay. How many men would continue to buy and plant trees, only to lose them? How long would farmers continue to raise wheat, if no crop was ever yielded? How many gardeners would patronise the seed stores, if the seedsman should bake and destroy the vitality of all that he sold, as we have heard of being done in certain places in the old world? No man will expend his money without a promise of a return, and it is therefore the nurseryman's highest interest to assist as much as practicable in promoting the successful management of the trees he furnishes.

Late Sown Vegetables.

Some of the greatest delicacies for table use may be obtained from quite late sowings. We can speak most positively in regard to turneps. Both the round and the flat turnep may be sown at any time in July or August, and we have known it come to considerable maturity in a season in which there were no early frosts, when sown in the first week of September. Special pains should be taken to enrich the soil, for in this way we secure two objects—the more rapid growth of the plant, and a sweeter and more tender vegetable. We suppose it is generally well known that the more rapid the growth of this and several other vegetables, the more mild and tender they are to the taste. Cabbages, onions, radishes, spinach, cauliflower, are all much more delicate in flavor, and agreeable to the palate when grown freely and rapidly, than when their growth is stinted or slow. Cucumbers and celery may also be added to the above named, as being much milder when grown rapidly than when of slow growth. Some of these may be raised late in the season, as well as turneps, so as to supply the table with the delicacies of spring and summer until quite late in the fall and winter.

By the end of July and in the course of August, there will be vacant places in garden and field, which it will be good economy to sow with turneps. There will be, at all events, the pea and early potato ground; these and other such patches may be sown with round or even flat turnep, and thereby, we will be making provision both for our family and our stock. What we do not use for the table will be well relished by our cattle; and cows which have a tolerable supply, will not dry up so early as cows that have no green feed. Observer.

High Culture.

During a recent visit to the garden of Dr. E. W. Sylvester of Lyons, N. Y., he showed us a strawberry bed measuring precisely 20 feet square, which bore two bushels and three pints of strawberries the present season, or at the rate of 223 bushels per acre. This product would not be extraordinary for some varieties of the strawberry; but for Hovey's Seedling, the sort here cultivated, which is usually only moderately productive, we regard it as a proof of skilful cultivation. We learned on inquiry that the soil, a light, coarse sandy loam, had been trenched two and a half feet deep, during which a very large portion of stable manure was worked in, probably at the rate of some two hundred loads or more per acre. Some of our best cultivators of the strawberry have regarded Hovey's Seedling as one of the sorts that would not bear a very rich soil, but this experiment seems to throw a doubt over such a conclusion.

Dr. S. had found a great advantage to garden vegetables generally, as well as to strawberries, in the application of liquid manure made from mold or swamp muck. He mixes a barrel of muck in a tub with four or five barrels of water, and about two pounds of caustic potash, or two bushels fresh ashes, if the potash cannot be had—daily stirring the liquid mixture for some days, when most of the muck will be dissolved or held by the water, and the whole will be ready for use. Its application to garden crops generally has produced very conspicuous effects, where alternate rows were selected for this purpose. Perhaps an equal quantity of pure water applied to the untreated rows would have afforded a fairer experiment, as this would have presented similar results from the watering only. Dr. S. thinks that this liquid application is about equal to guano water. But as it is more limited in its composition, it cannot be of so general application to all soils, and in some instances, and more especially when the soil is already largely furnished with vegetable mold, might prove of little benefit.

Dr. S. showed us a field of Mediterranean wheat, portions of which were treated with stable manure, swamp muck, and swamp muck mixed with ashes. A part was left without any application. The manured part had much the largest growth of straw, a part being badly "lodged"—the portion with muck and ashes, exhibited a fine, uniform, upright, thick growth; the muck alone was decidedly inferior, and the undressed part worst of all. No measurement having been made, the relative effects could not be known accurately, but we should estimate the product of the parts treated with yard manure and the muck and ashes, which were about equal and were applied at the rate of about 30 loads per acre, at nearly double that of the untreated land. A part of these different pieces was limed, without any visible effort—doubtless on account of a previous existence of a full supply of lime in the soil.

Curl in the Peach.

The curl in the leaf of the peach, which is generally supposed to have had a very unfavorable influence on the young crop, has given rise to much speculation as to its immediate cause, and cold weather, aphides, fungus or mildew, and diseased sap, have been variously assigned as reasons. The cold-weather theory will not always apply, as the disease sometimes appears after a continued succession of warm days, and the first opening of the young leaves shows the symptoms when they have never been exposed even to a cool night. Again, the disease has often made its appearance when no aphides could at any time be detected with the most powerful achromatic glass; and newly opening leaves, exposed only a few hours to the fresh air, and on which no insect had ever set foot, have shown incipient but unmistakable indications. The explanation by "diseased sap" is too general and indefinite—the fungus theory has more appearance of plausibility, but needs investigation and proof—and if correct, the fungus must be of *internal* growth, as the smooth and shining epidermis of the leaf is quite unbroken when the curl first appears in the cellular tissue.

But whatever may be the cause, the best remedy, so far as discovered, is vigorous growth. We have observed trees standing in the corner of a hog yard, where they were copiously supplied with manure, and as a consequence making a rapid growth, covered with deep green foliage, with scarcely a vestage of the curl; and a row of peach trees which had been very freely shortened in the past winter, by cutting of branches in some cases an inch in diameter, have sent out strong new shoots, almost wholly free from the disease, and the trees are well loaded with young fruit.

Manuring Orchards.

Wishing to manure an old orchard, and having as much under the plow as I can tend, what is the most advisable course for me to pursue? T. S. M. *Westmoreland, N. Y.*

Apply the manure late in the autumn, or in the winter, if it cannot be done sooner, and plow it under in spring and keep the soil mellow and clean by an occasional dressing with the harrow or two-horse cultivator. There is little use in trying to raise crops in orchards of large trees, which shade the young plants too much for profit to annual crops. Ashes or lime at the rate of 100 to 300 bushels per acre are mostly very beneficial to old orchards.

Amateur and Window Gardening.

Most plants grown for the window, particularly those gone out of bloom, would be the better out-doors entirely, while the scorching hot weather lasts. Select some sheltered place, where the rays of the mid-day sun do not fall on them if possible; plunge the pots to the rim in coal ashes or other light material, being careful whether plunged or not, to put something under the bottom of the pots to keep the worms from getting inside. By plunging the plants, they are not so likely to suffer by inattention to watering.

Pelargoniums, (geraniums,) should now be cut down to three or four eyes on each stem, keeping them rather dry for a while. When they have made shoots again about a quarter of an inch long, they may be taken out of the pots, all the mold shaken off, the roots slightly pruned and repotted into smaller pots—keeping them indoors, shaded from the sun, till they have recovered the check. This is one of the secrets to perfect success in geranium-growing. The cuttings may be put in as recommended below.

Any plant wished to flower in the fall or winter, such as *Pelargonium*, *Heliotrope*, *Cuphea salvea*, and the like, should be potted now for the last time, and the flower buds kept pinched out till the middle or end of August. Keep them liberally supplied with water, and when the pots are filled with roots, a little weak manure water will assist a sturdy growth, and by fall they will be prepared for vigorous flowering.

Mignonette should now be sown in pots for winter flowering. When up, thin out to three or four in a pot, and they will form nice little bushes; or if preferred a neat bush may be got from single plants, if a few small plants are taken up carefully from the borders, potted in good rich compost, kept under glass shaded and moist for a few days, and then, as the pots fill with roots, gradually shifted into larger, till fall, pinching out the flowers as they appear. By following this method we have had by Christmas and till spring, bushes some eighteen inches diameter, and hundreds of flower stems on at a time, making the atmosphere of a greenhouse as redolent as a walk in the garden on a summer evening, and that, too, when Nature's white sheet is spread over everything out of doors.

Every effort should be made, where there is a green-house, to get plants to flower in winter; for in a climate like this nothing is so refreshing as a walk in a well arranged green-house or conservatory in winter. *Fuchsia serratifolia* is a charming plant for this purpose, and should be encouraged in growth now as much as possible.

Now is the time, where there is a green-house of pits plants for storing them, to set about in earnest preparing for decorating the flower garden next year. Pits are a very useful structure for this purpose, and by having a flue, will cost but little and answer all purposes for bedding plants. The proper way is to go over the beds and borders, and ascertain something like the quantity likely to be wanted of each sort, and strike accordingly. This saves a great deal of anxiety at planting time, besides having the beds properly filled. Another point is to strike nothing but those possessing good qualities, as the same room and labor is taken to grow rubbish as good things.

All the *Pelargonium* tribe strike readily in open air, shaded from the sun, in sand mixed plentifully with the soil; in fact this holds good in striking cuttings—the sand materially assisting the formation of the calosity at the base of the cuttings, after which the formation of roots is a matter of certainty. When they have taken root, they may be taken up and potted singly in small pots, which is the better way, or if room is a consideration, several in a larger pot.

Most other plants strike better with the assistance of glass. A frame is just the thing, filled with good light mold and sand to within six inches of the top - place a slight layer of sharp sand on this, pressed down rather firmly, the cuttings dibbed, watered, and kept moist and shaded, and if properly done few will miss. A hand light answers equally well, and if neither of these are at hand, then use flower pots filled to three inches of the top, putting plenty of drainage at the bottom, and a piece of glass to cover the top of the pot. Some hundreds may with care, be struck in this simple way.

Bulbous plants may, as the tops die off, be taken up and dried in the shade. This is scarcely necessary for border plants, except when they become too thick, which will happen every third or fourth year. They may be planted again in the fall.

Many of the hardy herbaceous plants strike well from cuttings. Where the sorts are scarce, and offsets few, a quantity of these may be put in.

The beautiful tribe of *Phloxes* strike freely from the flower stalks. Too many of these cannot be had, particularly of the dwarf varieties—the one called *Van Houtii* being a splendid thing; no garden, however small, should be without it.

Seedling perennials should be pricked in beds a few inches asunder, or into the borders they are to occupy, three in a place, in a trianglar form—care be taken to plant the tall in the middle, and dwarf ones outside. This simple injunction is seldom sufficiently attended to, and shows great want of taste when the flowering commences, besides very pretty dwarf plants being often hid from sight by their more lengthy neighbors. E. S. *Albany, July* 16, 1853.

Sowing Garden Seeds in Autumn.

The practice of sowing the seeds of hardy vegetables for early spring use, at such a time of year, that they shall make considerable growth before winter, has been practiced with great success by some gardeners, particularly for lettuce, early cabbage, early onions, spinach, &c. Much of the success of some of these vegetables consists in getting a sufficiently good and vigorous growth before winter. But it often happens that the soil is suffering from the severe autumn drouths at the best time for sowing. J. Towers, a skillful English gardener, pursues the following method, which, if found useful in that humid climate, would doubtless be of much greater advantage under our parching suns. He first thoroughly soaks with a fine rose watering pot the entire space to be seeded—this is done at sun-set, and the surface covered with mats all night, and until late the next afternoon, when the watering and covering is again repeated, and so on for three successive days. By this time the soil is brought to a fine, friable, quite moist condition, when the drills are drawn, a watering given along each, the seed then sown and covered with the screened earth. Every good seed will grow without failure, and with no appearance of the unevenness so common with dry weather sowing. Superficial watering, as is commonly practiced at this season, is perfectly fertile, and soaking the seed merely will be of little use. A *very weak* solution of guano, or of super-phosphate of lime, may be used for moistening the drills.

American Grapes.

Most of our readers are aware, that N. Longworth, of Cincinnati, has been for many years much interested in collecting and testing all the American varieties of the grape which could be found. He has now about a hundred sorts thus collected. During the past autumn, he invited a committee to visit his collection, containing about thirty sorts in mature fruit. The results of the examination made are given by Dr. Mosher, in a late number of the Western Horticultural Review, from which we select the following, which are notices of the most interesting or valuable sorts. The "Delaware County" will be recognized by our readers as the sort lately described by N. Longworth as one of uncommon promise, and of which we lately published some account.

Zane.—Said to have been found on an island in the Ohio river, below Wheeling; in color and form it resembles Catawba; a very delicate, juiey grape, with less of the Foxy taste than the Catawba.

Thatcher's.—A native of Ohio; a very fine table grape; resembles the Herbemont in the berries, but the bunches are smaller.

Herbemont's (Madeira).—Vigorous, healthy vine; bunches large, shouldered; berries small, purple, compact; skin thin; no pulp, but juicy and vinous; an excellent table grape, and yields a wine resembling Spanish Manzanella.

Winne.—Considered a good pleasant grape for table.

Marion.—Resembles Isabella, probably a seedling from it; berries and bunches larger; it is superior as a table grape, an abundant bearer, and ripens uniformly.

Hotchkiss.—One of the best of the Fox grapes.

Clermont.—Resembles Catawba in color; a delicious table grape.

Davis'.—From Kentucky; resembles Catawba; less aroma, more acid; large and vigorous grower.

Lee's.—Resembles Isabella; very good.

Diana.—From Massachusetts; seedling from Catawba; smaller, paler, less pulp, thicker skin; juice sweet and pleasant; judged not equal to Catawba, as far as tested here.

Hyde's Eliza.—Resembles Isabella; good.

Delaware County.—A small grape; color like Catawba; bunches small; skin thin, delicate, transparent; juice brisk, and vinous; and judged one of the very best table grapes. Vine resembles a foreign grape. It has been pronounced by several German vine men to be identical with their *Traminer* (?) one of their best wine grapes. The vine is said to have been cultivated in New-Jersey for sixty years, and twelve years in Delaware county, in this State, and is as hardy as the Catawba. Was sent from Europe to a foreigner in New-Jersey, by a brother of the person to whom sent.

Clarkson.—A small, black grape; excellent for the table.

Missouri.—Small black grape; bunches loose; skin thin; little pulp; good for the table. Mr. Longworth says: "A fine wine grape where brandy is added, as is done with the Maderia wines, which it resembles."

The Grazier.

Importation of Stock.

The (London) *Mark Lane Express*, of 13th of June, congratulates the farmers of England upon the fact, that "whatever injury the importation of foreign stock may have inflicted on the breeders of this country (England,) it appears likely to be more than compensated by our export trade in the same description of produce." In proof of this, it alludes to recent sales and shipments of stock to this country. At a sale held on the 1st of June, NOEL J. BECAR of N. Y., bought a yearling Short-horn heifer, "Beauty," bred by H. Combe of Cobham Park, paying for it $750, the highest price realized from any animal at the sale. This gentleman, it says, has "recently purchased several other very superior specimens from some of our most celebrated herds, on behalf of himself and Col. L. G. MORRIS, President of the New-York State Ag. Society. At the same sale, a Short-horn bull-calf, "Liberator," was purchased for Mr. KELLY, near Philadelphia, for $400.

In the same paper of June 6, we find the following notice of the shipment of a cargo of stock, all of which is destined for Kentucky:

> Seldom has it fallen to our lot to chronicle as valuable a cargo as left Liverpool on the 4th of June, in the "Crown," for Philadelphia; more particularly as relating to the agricultural interest. This may be inferred when we mention that in the ship mentioned were sent out fifty head of the choicest specimens of short-horned cattle which could be bought in old England; several of them being purchased at prices which may appear incredible; as probably no ship was ever freighted with anything like so valuable a cargo of this description. Twenty four head of cattle and a quantity of sheep, the property of R. A. Alexander, Esq., Airdri House, Scotland, were sent in her, destined for his estate in Woodford County, Kentucky, U. S. Some estimate may be formed of the high spirit and enterprize of this gentleman, when we mention that for two animals alone, a two-years old heifer and a yearling bull, named the "Duchess of Athol," and 2nd "Duke of Athol," bred in this county by Charles Townley, M. P., near Burnley, he gave the large price of £525, ($2,625.) To Mr. Strafford, of London, who had the superintendence of Mr. Alexander's cattle, we are indebted for several interesting particulars relating to the stock, and who informed us that these two animals were the produce of one cow—"Duchess 54th"—bought at the sale of the celebrated herd of Short-horns of the late Thomas Bates, Esq., at Kirklevington, and bred since that gentleman's decease. We also noticed in the cargo, some very fine young bulls, bought from the justly famed herd of F. H. Fawkes, Esq., Farnley Hall, as well as some very choice cows and heifers from the well known herds of Messrs. Bell, Bolden, Cattley, Combe, Downs, Fuller, Lowndes, Tanqueray, Wiley, &c. The Sheep, principally of the Cotswold or New Oxford breed, were from the crack flocks of Mr. W. Garne, of Aldsworth, and Mr. John Gillett, of Minster Lovell. The other portion of the stock consisted of 10 short-horned bulls and 15 cows and heifers of the same breed, selected at very high prices for a large importing company, also from Kentucky, the agents for which, Messrs. Dudley, Garrard, and Van Metre, have succeeded, after much time and trouble, in the purchase of a splendid lot of cattle and sheep from the best herds and flocks in the kingdom. In evidence of this we may cite those of the Earl Ducie, Lords Burligton and Feversham, Messrs. Ambler, Beasley, Bell, Booth, Emmerson, Fawkes, Hall, Hopper, Maynard, Smith, Tanqueray, and Townley. They also had several fine specimens of the Cotswold sheep from the flocks of Mr. W. Garne and Mr. Lane, of Broadfield; some pure Leicesters from the flock of Mr. W. Sanday, of Holmepierpont; and some prime Southdowns, from the unrivalled flock or Mr. Jonas Webb of Babraham; besides a valuable stallion of the Yorkshire or coach horse breed; we can only hope they may have the good fortune to get them out safe and well, and reap the reward which such spirited exertions deserve. We believe for the freight alone, exclusive of the food and fittings requisite for such a voyage, that about £1,200 ($6,000) was paid, while the cost of the stock, with expenses incurred, must have exceeded £5,000 ($25,000.)

The following is from the same paper of 13th of June:

> We have again to report a further exportation of valuable cattle from Liverpool, during the past week. In the ship "Mary Carson," for Philadelphia, was sent out by Mr. Strafford, of London, the splendid young short-horned bull "Harry Lorrequer," bought at the sale of Mr. F. Fawkes, Farnley Hall, for 130 gs.; also two other valuable young bulls, "Liberator" and "Squire Gwynne (2nd)," bred by Mr. J. S. Tanqueray, of Hendon, with several heifers from his herd; as well as others from the herd of the Honorable H. N. Hill, Berrington, and a number of Cotswold sheep. Mr. Bell, of Mosbro' Hall, likewise sent in this ship eight short-horned heifers from his own herd, a young Devon bull bred by Mr. Davey, of South Molton, with some Devon heifers bred by the Earl of Leicester. Two other valuable cargoes are about to be despatched.—"The Star of the South" will take out the far famed bull "Balco," bred by the late Mr. Bates, of Kirklevington, and purchased at his sale in 1850, when one year old, by the Earl of Burlington, for 155 guineas. He has been used the last two seasons by Mr. Tanqueray, at Hendon, of whom he has been recently purchased by Col. L. G. Morris, the President of the New-York State Agricultural Society, on behalf of himself and Mr. Becar, of New-York. These gentlemen have also purchased some highly valuable cows and heifers from Mr. Tanqueray, as well as of the Hon. H. N. Hill and Mr. Harvey. Combe; they have further selected some splendid South Down sheep from Mr. Jonas Webb, with a quantity of Berkshire, Suffolk and Yorkshire pigs. The same ship takes out two very choice Devon heifers from Mr. George Turner's herd. Again, Messrs. Browning, Farrar, and Phellis, agents for the Madison County importing Company, Ohio, U. S., are sending in the "Monsoon," 23 head of short-horned bulls, cows, and heifers from the herds of Messrs. Booth, Fawkes, Hall, Knowles, Lawson, Raine, Thornton, Tanqueray, &c. Amongst the bulls is the first prize yearling at Sheffield, bred by Mr. Hall, of Kiveton Park. They will have, too, a number of improved Leicester rams and ewes from the flocks of Messrs. Brooke, Chapman, Hall, and Wood, as well as 13 pigs from the best breeders. Some estimate of the importance of these exports, destined for several parts of the United States, may be formed, when we mention that, from the best information we could procure, the cost of these, with the other stock mentioned in our last week's report, cannot be far short of £12,000, exclusive of the expense of shipping—in itself a heavy item, approaching, in fact, to £2,000.

It is understood that the Short-horns above alluded to, shipped by Mr. Bell, are for Mr. LORILLARD SPENCER of Westchester, Dr. HERMAN WENDELL of this city, and Mr. S. P. CHAPMAN of Madison county—the Devons for GEORGE VAIL of Troy, and the Messrs. WAINWRIGHT of Rhinebeck.

◆

CHURNING.—Butter should always be churned in a room or apartment, the temperature of which is between thirty and sixty degrees. At sixty degrees, butter is obtained in the greatest quantity, and at about fifty-two degrees of the best quality.

Spanish Merino Buck.

THE PROPERTY OF MR. GEORGE CAMPBELL, WEST-WESTMINSTER, VERMONT.

Points of Excellence in Cattle.

Adopted by the N. Y. S. Ag. Society, for the guidance of the Judges at their Annual Fairs.

HEREFORDS.

PURITY OF BLOOD, as traced back to the satisfaction of committees, to imported blood, *on both sides*, from some known English breeder, or as found in Eyton's Hereford Herd Book.	
THE HEAD—moderately small, with a good width of forehead, tapering to the muzzle; the cheek-bone rather deep, but clean in the jaw, ············	3
THE NOSE, light in its color, and the whole head free from fleshiness, ························	2
THE EYE full, mild, and cheerful in its expression,	2
THE EAR of medium size, ·····················	1
THE HORNS—light and tapering, long and spreading, with an outward and upward turn, giving a gay and lofty expression to the whole head, ····	2
THE NECK—of a medium length; full in its junction with the shoulders, spreading well over the shoulder points and tapering finely to the head,	2
THE CHEST—broad, round, and deep; its floor running well back of the elbows, which with a springing fore-rib, gives great interior capacity to this all important portion of the body, ······	14
THE BRISKET—*when in flesh*, largely developed, descending low between the legs, and deep, by covering the anterior portion of the sternum, or breast bone, but never interfering with the action of the animal when in working condition, ······	4
THE SHOULDER—lying snugly and closely in towards the top and spreading towards the points; the blade sloping somewhat back, and running pretty well up into the withers, which by rising a very trifle above the level line of the back, gives to the ox a very upstanding and beautiful fore-end. The whole shoulder well clothed with muscle, ··	3
THE CROPS—filling all up evenly behind the shoulders, and blending them smoothly with the muscles of the back, ·························	3
THE BACK, loin, and hips, should be broad, wide, and level, ······························	8
THE RUMPS should lie nearly, or quite level with the back, and their covering should be abundant, mellow, loose, and freely moving under the hand, thus showing great aptitude to fatten, ········	4
THE PELVIS—roomy; indicated by wide hips, as already mentioned, and the space between the rumps, which should stand well apart, giving a general breadth to the posterior portion of the animal, ······························	3
THE TWIST, broad and full, extending well down on each side of the thigh, with corresponding width—a broad twist as a good indication of a butcher's animal, ························	5
THE HIND QUARTERS—large and thoroughly developed in its upper and more valuable portions, as beef. The thigh gradually tapering to the hock, but muscular, ·······················	6
THE CARCASS—round throughout; full and capacious, with the under line of the belly level, or nearly so, ······························	3
THE FLANK full and wide, ······················	3
THE LEGS—straight, upright; firmly placed to support the superincumbent weight; a strong back sinew, but by no means a large, coarse cannon bone, ·····························	3
THE PLATES of the belly strong, and thus preserving nearly a straight under line, ·············	3
THE TAIL—large and full at its point of attachment, but fine in its chord, ·················	2

The Carriage—prompt, resolute and cheerful; and in the ox, gay and lively,	3
The Hair—thick, close and furry, and if accompanied with a long growth, and a disposition to curl moderately, is more in estimation, but that which has a harsh and wiry feel is objectionable,	3
The Udder should be such as will afford the best promise of capacity and product,	2
Color—Reds or rich browns, oftentimes very dark, with a white or "brockled" face, are now the colors, and marking of the Herefords, though grey Herefords or cream-colored, are not uncommon,	1
Quality—On this the thriftiness, the feeding properties, and the value of the animal depends; and upon the touch of this quality rests, in a good measure, the grazier's and the butcher's judgment. If the "touch" be good, some deficiency of form may be excused; but if it be hard and stiff, nothing can compensate for so unpromising a feature. In raising the skin from the body, between the thumb and finger, it should have a soft flexible and substantial feel, and when beneath the out-spread hand, it should move easily with it, and under it as though resting on a soft, elastic, cellular substance; which, however, becomes firmer as the animal "ripens." A thin papery skin is objectionable, more especially in a cold climate,	15
	100

Points of the Hereford Bull.

As regards the male animal, it is only necessary to remark, that the points desirable in the female are generally so in the male, but must, of course, be attended by that masculine character which is inseparable from a strong and vigorous constitution. Even a certain degree of coarseness is admissible, but then it must be so exclusively of a masculine description, as never to be discovered in the females of his get.

In contra-distinction to the cow, the head of the bull, may be shorter, the frontal-bone broader, and the occipital flat and stronger, that it may receive and sustain the horn—and this latter may be excused if a little heavy at the base, so its upward form, its quality and color be right. Neither is the looseness of the skin, attached to, and depending from the under jaw, to be deemed other than a feature of the sex, *provided* it is not extended beyond the bone, but leaves the gullet and throat clean and free from dewlap.

The upper portion of the neck should be full and *muscular*, for it is an indication of strength, power, and constitution. The spine should be strong, the bones of the loin long and broad, and the whole muscular system wide and thoroughly developed over the entire frame.

◆

The Staggers in Swine.

In answer to the inquiry of T. W. C. of Spring Vale, N. C., we copy the following, on the treatment of this disease, from the *American Swine Breeder*:—

This is a disease to which swine are sometimes subject. Hogs affected suddenly with this disorder, turn around rapidly, and if not assisted will soon die. On opening the mouth a bare knob, in the roof of it will be discovered (this, however, is not always visible), which, if found, should be cut and allowed to bleed. Some writers recommend the powder of loam and salt, rubbed into the wound thus made, and the administration of a little urine to the hog.

A writer in the New-England Farmer, remarks that he "lost two swine from ignorance as to the cure of this disease; but by cutting off the tails and ears of the animals, as the easiest way of bleeding them, giving them strong doses of castor oil, and turning them out of the sty into the pasture," he succeeded in saving them. Sometimes they relapsed, but were restored again by being turned out. But they did not soon come to their appetite, and the disease materially, and for a long time retarded their growth.

◆

Right Education of Horses.

That horses may be educated will not appear strange to those who have closely observed the intelligence often manifested by that noble animal. The present remarks are designed to give some information in relation to the rearing and treatment of young horses, not so much, however, with reference to their food and drink, as to their quietness and docility.

That there is a difference in the temper and disposition of different horses, is not denied; but at the same time it is averred that where a horse is so vicious or unmanageable as to render him unsafe in the harness, it is chargeable *in almost every instance* to the treatment he has formerly received.

The training of colts should commence when they are about three months old, so as to have them become familliar with the family before they are taken from the dam. Some colts are inclined to use their heels rather too freely; in such cases great care is necessary. They should be approached carefully, and caressed and curried, and they will soon submit to have their feet taken up and handled without resistance; and this will aid in quieting them while being shod, as the horse seldom forgets what he has once learned.

A common method of weaning colts is to take them to some back lot, and place a heavy yoke or "poke" on the neck, which they are compelled to wear for several weeks until their spirits are completely broken, and they become more or less "ewe-necked," from which defect they rarely wholly recover. Another method, but little less objectionable, is to shut them in the stable; but this does not learn them to *respect a fence* in the least. Now the better way and the one that the writer has practiced with uniform success, is the following:—Prepare a yard, (if it contains an acre or more, so much the better,) having a strong high fence, so high that the colt cannot possibly leap over it—from six to seven feet will be sufficient—and let the materials of which the fence is composed be the same as those enclosing the field where the colt is in future to be kept—either wall, boards, or rails, as the case may be—and place him there without attaching any artificial appendage whatever, and let him understand *that it is the fence alone that prevents his escape*. He should be generously fed, and also have a shed at which he can retire at pleasure. After he has been subdued in this way, he may be turned into any field *having a fence of the same kind*, and of ordinary height, and he will not attempt to break over. Even the most spirited horse brought up in this way cannot be induced to leap a fence four and a half feet high.

The practical benefits of the above plan are great. In passing through the country one is pained to see so many noble looking horses shackled and hampered in every conceivable way that ingenuity can invent, much to their detriment in putting on flesh, to say nothing of the perplexity and trouble to the owner in adjusting the trappings every time the beast is turned out or taken up, and all for the want of a little care during the first year,—for it is eminently true in this case that an ounce of prevention is worth a pound of cure.

There are many horses not "true" or reliable, in the harness, having the habit to stop or balk, especially at the foot of a hill; this is caused by having been at some time overloaded, and perhaps unmercifully beaten.—Neighbor A. has a beautiful span of bays three years old, that he has been breaking in the past winter; he wishes to haul some rails from the farther side of the farm, and as the colts have become tolerably "handy," he puts on nearly a full load which they manage very well until they come to a "hard spot," and there they stop. The driver looks at the load, then looks at the horses: they are nearly as large as the old team,—he *knows* they *can* draw it, and is determined they *shall*. So he commences beating and pounding the poor animals until he is nearly worried out, when he throws off his load and goes home with loss of both time and tem-his load and goes home with loss of both time and temper, and the horses damaged to the amount of twenty-five dollars each.

Now it is quite probable that the horses had *strength* enough to draw the load in question, but they had not sufficient practice; they did not know how to apply their strength, and did not work in concert. They should have been made to draw only light loads for a long time, and then by increasing the weight gradually, as their strength and experience increases, they can be made to do all the work they are capable of doing, and will always work kindly, and may be depended on under all circumstances.—*The Wool Grower and Stock Reg.*

The Staggers in Swine.

In answer to the inquiry of T. W. C. of Spring Vale, N. C., we copy the following, on the treatment of this disease, from the *American Swine Breeder*:—

This is a disease to which swine are sometimes subject. Hogs affected suddenly with this disorder, turn around rapidly, and if not assisted will soon die. On opening the mouth a bare knob, in the roof of it will be discovered (this, however, is not always visible), which, if found, should be cut and allowed to bleed. Some writers recommend the powder of loam and salt, rubbed into the wound thus made, and the administration of a little urine to the hog.

A writer in the New-England Farmer, remarks that he "lost two swine from ignorance as to the cure of this disease; but by cutting off the tails and ears of the animals, as the easiest way of bleeding them, giving them strong doses of castor oil, and turning them out of the sty into the pasture," he succeeded in saving them. Sometimes they relapsed, but were restored again by being turned out. But they did not soon come to their appetite, and the disease materially, and for a long time retarded their growth.

Domestic Economy.

Uses of the Peach.

We make the following extract from an article which appeared in the *New-York Times*, over the signature of Agricola:—

The peach is one of those fruits in particular recommended to be eaten in the morning, in preference to any other time. Brookes says they agree well with persons of hot constitutions and costive habits, especially if eaten in a morning fasting; and Gerard says that the leaves boiled in milk will destroy the worms in children. From the wood of the peach tree the color called rose-pink is obtained. The leaves, when bruised and distilled in water, constitute an excellent article for flavoring certain descriptions of cookery. When steeped in brandy, they communicate to it the flavor of Noyeau. Sweetening with fine sugar, mixed with a small quantity of milk, and afterwards decanted in the usual manner.

Dried Peaches.—To dry peaches in their whole state, pare them, boil for a few minutes in a syrup composed of one pound of sugar dissolved in three quarts of water, and, after being drained by laying them singly on boards, place them in the oven, after the bread is taken out, and pack them carefully in boxes. Another method pursued in the drying of peaches is to have a small house, provided with a stove, and drawers in the sides of the house lathed at their bottoms, with void intervals. The ripe peaches are then cut in two, but not peeled, and placed in a single layer on the laths, with their skins downward, to save the juice; on shoving in the drawer, they are soon dried by the hot air produced by the stove: in this way great quantities may be successively prepared, in a single season, with but a little expense in the preparation of the buildings and in fuel. There is yet another method which it may be well to refer to in this place. Take the open stone sort, when perfectly matured, but not too soft, and, after rubbing off all the down with a coarse wet cloth, divide them into haves, fill the cavities with sugar, and place them skin down, so that they may be removed without handling the fruit. By this method the pores are so closed on one side by the skin, which should not be removed, and sugar on the other, that the flavor of the fruit is retained in a much greater degree than in the common way.

Peach Preserve.—Take enough clarified sugar to cover the fruit, boil it till the syrup blubbers on the opposite side of the skimmer, then put in the fruit, let it boil lively two minutes, remove the same, let it stand from the fire till next day, then take out the fruit, boil the syrup again, and as soon as the fruit boils take them from the fire, and when cold put into jars, and keep free from heat or moisture.

Peach Jam.—Gather the fruit when ripe, peel and stone them, put them into the pan, and mash them over the fire till hot; rub them through a sieve, and to each pound of pulp add a pound of white sugar and half ant ounce of bitter almonds, blanched and pounded; let i boil ten or fifteen minutes, stir and skim it well.

Peach Jelly.—Take free stones, not too ripe, wipe them, and cut into quarters; crack the stones and break the kernels small; put the peaches and kernels into a covered jar, set them in boiling water, and let them do till soft; strain them through a jelly bag till the juice is squeezed out; allow a pint of white sugar to a pint of juice; put the sugar and juice into a preserving kettle, and boil them twenty minutes, skimming very carefully; put the jelly, warm, into glasses or jars, and, when cold, tie up with brandied papers.

Peach Wine.—Take nearly ripe fruit, stone it, and bruise the pulp in a mortar; put eight pounds of the pulp to one quart of water, and let it stand twenty-four hours, then squeeze out the juice, and to every gallon of it add two pounds of white sugar; then put it into a cask, and when it has fermented and become perfectly clear, bottle it up, and use at pleasure.

Peaches in Brandy.—Wipe, weigh, and carefully select the fruit, and have ready a quarter of the weight of powdered white sugar; put the fruit into a vessel that shuts closely, throw the sugar over it, and then cover the fruit with brandy; between the top and cover of the pot, put a piece of double cap paper; set the pot into a saucepan of water till the brandy is quite hot, but not boiling; put the fruit into a jar, and pour the brandy upon it, and, when cold, put a bladder over, and tie it down tightly.

Pickled Peaches.—Take a gallon of good vinegar, add to it four pounds of sugar, boil it for a few minutes, and remove any scum that may rise; then take clingstone peaches that are fully ripe, rub them with a flannel cloth, to get off the down upon them, and stick three or four cloves in each; put them into a glass or earthen vessel, and pour the liquor upon them boiling hot; cover them up, and let them stand in a cool place for a week or ten days, then pour off the liquor, and boil it as before, after which return it boiling to the peaches, which should be carefully covered up and stored away for future use.

Drying Tomatoes.—The Ohio Cultivator says, (early last summer,) "We ate some very fine tomatoes not long since, dried in the following manner. Fruit fully ripe was scalded, strained through a sieve, slowly cooked half an hour, spread on clean plates, and dried within an oven, the whole process requiring about two days before the fruit was ready to pack away."

To Stop Bees from Fighting, breaking the comb of the robbers is said to be sufficient, by giving them plenty of business in taking care of their wasting honey at home. It is said to have succeeded completely.

Notes for the Month.

Trial of Mowers and Reapers.—The trial of Mowers and Reapers, under the charge of a committee appointed by the Rensselaer County Ag. Society, took place on the farm of Mr. Kimball, in Greenbush, Wednesday, July 13. A large number of farmers and others were in attendance, and the interest manifested in the trial, amounted almost to enthusiasm. Not less than four hundred persons were present, and many were from adjacent counties. A stronger proof of the readiness of our farmers to avail themselves of every improvement, could not be desired. The most incredulous of the availability of these machines on small farms and uneven meadows, went away convinced that mowers can cut the grass closely, evenly and rapidly, and the general conclusion was, "I must have a mower and a reaper, just as soon as I can ascertain which is the better one."

The Mowing machines entered for competition were Ketchum's, H. L. Emery's and Manny's, and each cut an acre of grass well. Ketchum's machine seemed to be the favorite. It was operated by a practiced hand, worked without interruption, and cut the grass to the satisfaction of every one. The facility with which it can be turned about, and its compactness, make it preferable to the more complicated machines as a mower. A strong desire to have a mower and reaper combined in the same machine prevails among farmers, and Emery's and Manny's attracted close attention on this account. Both of them did their work satisfactorily. Manny's has been tested before; Emery's was entered for an experimental trial, he being still engaged in improving it. Waving some faulty working incident to a new machine, it operated finely, adapted itself to uneven surfaces in a superior manner, and cut its way through lodged and trampled grass without clogging. The decision of the committee has not yet been made public.

The only Reaping Machines entered for premium were Seymour & Morgan's and Manny's. The rapidity and regularity with which these machines cut and laid the grain, excited surprise and admiration. It was the general opinion that Seymour & Morgan's machine did its work the best; but of this the committee will in due time decide, and let us know the specific excellences of each, and their relative value.

Meantime, the farmers, who have seen the trial, will complain all the harvest season, that the scythes are uncommonly heavy and dull, their backs unusually weak, and dream at night of mowing machines, and seeing an acre of grass evenly fall in thirty or forty minutes. It will be severe work now to swing the cradle, and every farmer with twenty acres of grain has determined to buy a machine at an early day.

Reapers.—The *American Farmer* states, that at the trial of Reapers on the 21st and 22d of June, under the direction of the Virginia State Ag. Society, the judges were divided in their opinions as to the merits of the three machines on the ground, two giving the award to Hussey's, two to Burrall's (which took the premium at the N. York trial last year;) and one to M'Cormick's.

The *New-York Agricultor* says—A trial of Reaping and Mowing Machines was had at Mount Holly, N. J., on the 2d instant, under the auspices of a committee of the Burlington County Agricultural Society. The general result was decidedly favorable to the employment of machinery for such purposes. Only McCormick's and Hussey's machines were entered for the reaping; McCormick's, Hussey's, Ketchum's and Manny's, for the mowing. The following premiums were awarded:

For the best machine for Mowing and Reaping combined, the premium of $15 to McCormick's machine.

Second best "Mower and Reaper," the premium of $10 to Hussey's Machine.

For the best "Mower," the premium of $10 to Ketchum's machine.

For the best "Reaper," the premium of $10 to Manny's Machine.

Town Ag. Societies.—The town of Galen, Wayne county, has an agricultural society, which, from its efficiency, is doing much to promote the interests of its farmers. They held a Plowing Match on the 4th inst., and are to hold a Town Fair on the 17th Sept. We should be glad to know how many Town Ag. Societies are in existence in this State. So far as we know, the number does not equal one to a county; but we see no good reason why one-half the towns in the State, should not organise such associations. Their influence would reach, much more effectually than county societies can do, the mass of farmers, and the results could not fail to be of the most gratifying character.

Query—Ought not the law for the "Encouragement of Agriculture," to be so amended as to make appropriations to Town as well as County Societies?"

Value of Railroads.—The Prairie Farmer says that the Eastern railroads which enter Chicago, have added ten to twenty-five per cent to every "useable animal with four legs," and every other saleable substace that animals produce. They have also given a cash value to many other things, which, though they might be used to a local extent, could not be sold. If animals have become of more value, of course the grass and grain that they eat have increased in price, as well as the land they grow on. All parties reap the benefit. The company prospers by the carriage of men, produce and merchandize; the farmer by the enhanced value of his produce; the mechanic by the increased demand and better pay for his work; the merchant and professional man, by the increase of facilities, conveniences, and the general growth and remuneration of business.

Oregon.—We make the following extract from a letter from a subscriber, dated Oregon city, April 28, 1853:—"It may be superfluous to write about the *crops* in this far off region, or of the *climate*. You no doubt read many statements—mostly, I think, exaggerated. The rot among potatoes has not reached here. The plum, as far as I have seen, has escaped the ravages of the curculio. The bitter rot does not affect the apple. On the contrary, this seems to be of superior quality; having a very smooth waxen surface, but thick rind. This spring is one month earlier, or nearly so, than last. It is now about time to plant corn; but very little of this crop is grown. The ground must be highly manured, or else the very choicest spots selected, or very little can be expected to ripen. Wheat looks well where not disturbed by mice, but in the prairie country, some crops are entirely destroyed by this troublesome animal. Where the crop stands, about an average yield, in this country, may be set down at 15 bushels. The grain is always remarkably well filled, but owing to the thickness of the bran, weighs only 58 lbs. to the bushel. In speaking of fruits, I might have added that there is promise of an abundant crop, excepting that in some parts of the flat prairie country the peach crop has suffered considerably by the frost. At some future time, if desired, I will give you an account of the crops as they ripen, and whether the grape will ripen in the open air in this latitude. We have many varieties of the apple and pear; also of other fruits. Many of each will ripen this summer, and it may be interesting to you to know the average size, as well as quality of each."

We shall be glad to hear from the writer as he promises, and also from any one of our subscribers in Oregon and California, as to the prospects of agriculture and horticulture in those far off-lands.

Remarkable Product of Butter.—On the 164th page of this paper, we gave an account of butter made from the milk of a three year old heifer, called "Cherry," owned by Miss Mary Brice, of New-Scotland, in this county, for the 100 days, succeeding the 11th of Nov., 1852. We are now furnished with a statement for the following hundred days, from which it appears that the heifer Cherry was four years old on the 14th of June, 1853—that she had her second calf Nov. 4, 1852, and that, in the two hundred days, from Nov. 11th to May 29, 1853, there was made from her milk 194 lbs. 11 oz. butter—a very large product for so young an animal, including as the period does the entire winter months, and without other extra feed than four quarts ship-stuff twice a day.

Purchasing Stock in England.—Some of our people thing it an easy matter to purchase fine stock in England; but the experience of those who have visited that country for this purpose, proves that it is about as difficult to procure fine animals there as here. One of the agents sent out by a company in Kentucky to purchase stock, details the difficulties he met with, in the *Kentucky Cultivator*. He says—"You can form no idea of the difficulties that surround us in getting cattle to suit; to find them of quality that we want, and of age and condition; and then when we do they can't be bought for money at all, which is generally the case. Some of these men whose income is $300,000 to $500,000, who keep Short horns as a matter of pride and fancy, if they have a fine animal that is admired very much, and pleases their own fancy, and you were to offer to buy such an animal of them, and would offer to weigh it in a scale, and agree to give the "weight in silver dollars," would not let you have it."

Ayrshire Cattle for Canada.—A committee from an agricultural association at Brockville, C. W., consisting of Messrs. Chas. Jones, J. W. Hough and Wm. Beattie, purchased, the past week, from the beautiful herd of E. P. Prentice, Esq. of Mount Hope, near this city, four fine animals, consisting of a two-year old bull, "Dundee 3d"—a yearling bull, "Highlander 2d," and two in-calf heifers. They were all fine specimens of Ayrshires, and cannot fail to give satisfaction to the society for whose use they were bought.

The Government of New-Brunswick has appropriated $800 to each County Ag. Society in the Province, for the purpose of importing improved breeding horses, on ondition that tche societies each raise $200 for a similar purpose. It is proposed to send out an Agent to attend the ensuing Fairs of England and Scotland, that he may have the best opportunities for obtaining information and making the purchase of the animals desired.

Herefords in Kentucky.—The last *Kentucky Cultivator*, contains the pedigrees of two bulls and two cows, Herefords, purchased of Wm. H. Sotham of Piffardinia, Livingston co., N. Y., by John J. Towles of Henderson, Kentucky. We shall be glad to hear how these cattle succeed on the rich pastures of Kentucky, and doubt not Mr. Towles will give them a fair chance to compete with the Short horns.

Increase of Agricultural Machinery.—It is said that the manufacturers of steam engines for farm purposes in England, have increased eight fold in three years, and that one house that furnished only fifteen-five years ago, three years afterwards made about three hundred. Thrashing, and other machines, are also rapidly increasing in manufacture, and clod crushers, reaping machines, and some of the newer articles much more rapidly.

Annual Addresses.—The Address at the New-York State Fair at Saratoga, is to be delivered by Hon. W. C. Rives of Virginia—that at the Indiana State Fair, by Horace Greeley of New-York—and that at the American Institute, by Hon. Wm. H. Seward of Auburn.

Native Flowering Trees.—Mr. Dille of Newark, O., a well known amateur horticulturist, states in the *Ohio Cultivator*, that he has recently discovered two new flowering trees, which he thinks of sufficient interest to florists, to communicate to the public—the first, a deep pink flowering dogwood, *Cornus Florida*, which he found in the woods near Lancaster; and a bright red flowering Buckeye, found in Hocking county.

The American Farmer, Baltimore, Md., begins a new volume with the July No. It is published monthly by Sam'l Sands, at $1.00, and is one of our very best agricultural journals.

The Wool Grower and Stock Register, published at Rochester, by D. D. T. Moore, monthly, at 50 cents, and edited by T. C. Peters, Esq. and the publisher, is a valuable work, and no wool-grower should be without it. Now is the time to subscribe, as a new volume commences this month.

☞ Col. Carroll of Dorreghan Manor, Md., has just imported from France, a stallion and two mares of the celebrated Persheron breed, and a Norman mare. The editor of the *American Farmer* thinks they will be found to be unsurpassed by any importation into this country. Such men are public benefactors.

Morgan Stock.—According to the Boston Cultivator there has been sold from the town of Bridport, Vt., since 1844, 38 Black Hawk colts, part geldings and fillies, for the aggregate sum of $22,737, or an average of $590 each. There are many in the town unsold. This shows the value of Morgan stock at home.

Poultry Show.—Mr. M. Van Deusen of Phelps, Ontario co., proposes to be one of five or more, to pay $20 each, to make up a fund to be offered as a premium to any one in this State, who shall exhibit the best five pairs of Cochin China, Chittagong, Shanghai, Brahma or Malay, and Dorking Chickens, on the last day of the New-York State Fair at Saratoga. He also proposes to be one of five or more, from any part of the Union, to pay $50 each, for a fund to be awarded at an exhibition to be held in New-York, the week after the State Fair, for the best ten pairs of chickens.

Heavy Calves.—It is with no small degree of gratification, that we comply with the request of Mr. Aaron Wilson, of Ovid, N. Y., to make known through your paper, the fact of his rearing and owning two remarkable calves, crosses of the Devon and Durham stock.

The first is a steer, two years of age, whose weight is 1400 lbs., and which measures in length 13 feet, 5 in. from the tip of the nose to the end of the tail, the body measuring 7 feet in circumference. This steer never ran with the cow, but was reared "by hand," in the usual method. The other is a young calf, three weeks old, whose weight, before being one day in *cattle-dom*, was one hundred and twenty-two pounds.—Both were bred from the same cow, and we dare say, are "hard to beat." D. H.

Food for Sheep.—A late writer of great intelligence on this subject, says, "No farmer can feed either cattle or sheep profitably, without either ruta bagas, mangel wurtzel, carrots or parsnips. The experiments made in England and Scotland, in the last two years, have demonstrated this beyond all doubt."

Wheat Crop in Virginia.—A letter from a correspondent in Chesterfield, Virginia, dated 2d July, says—"Our wheat harvest is just closed, with probably the best crop ever raised in Eastern-Virginia. Owing to a severe drouth, the oat crop is light."

New-York Agricultural College.—The committee of the trustees, Messrs. King, Kelly and Johnson, who were appointed in relation to the purchase of the farm for the Institution, met at the Oaklands farm, on Saturday, June 4th, and after examining the farm of Mr. Delafield, and the title to the same, which was found in all respects saisfactory, reported to the Board of Trustees in favor of purchasing the same at $26,000. The farm contains 350 acres, with varieties of soil well adapted to the objects of the Institution. The report was accepted by the Board of Trustees. As soon as the necessary funds are secured, of which the prospect is very encouraging, the arrangements for placing the Institution in operation will be carried out at an early day.

World's Agricultural Fair.—A correspondent suggests as a subject for discussion, "a World's Agricultural Fair, to be held in the United States." We shall be glad to hear the views of others upon the subject, though we have doubts as to the feasibility of such a project.

The New-York Teacher.—The N. Y. State Teachers' Association issue a monthly journal, with some numbers of which we have been recently favored. It is published in this city, under the resident Editorship of Alderman Valentine, who is aided by 12 other Teachers, residing in different parts of the State. We are glad to see our Teachers thus combining their efforts for the improvement and advancement of their profession. The Teacher should be in the hands of parents as well as instructors. Price $1 a year. Address T. W. Valentine, Albany.

Horses in St. Lawrence.—A correspondent speaks in the highest terms of the horses in this county, and thinks that no territory of the same size in any part of New-England, can show more first class horses than St. Lawrence. He speaks particularly of "one Black Hawk steed, owned by Messrs. Prescot and Sherman, of Canton, which might well challenge comparison with anything that ever bore the name of Black Hawk. He is a beautiful bay color, with flowing black mane and tail; stands 16 hands high, and weighs eleven hundred and fifty pounds. His build is faultless—his motion proud and graceful."

Comparative Value of Manures.—According to the experiments of H. H. Eastman, on potatoes, as reported in the Journal of the N. Y. State Ag. Society, hog-manure gave the best results, the manure of fowls next, compost next, then common unfermented manure. Lime and gypsum, sulphur and saltpetre, did not increase the yield of this crop.

The Cranberry.—Can you inform me, where I can get plants of the true Bell Cranberry? Is it superior to the kind commonly cultivated? Will it flourish on upland? By answering the above, you will confer a favor upon E. Beckwith. *Norfolk, Ct., June* 30.

Plants of the above Cranberry can be had of F. Trowbridge, New-Haven, Conn. We leave the other questions for correspondents to answer.

Exports of Flour, Provisions, &c.—The following figures show the amount of these articles exported from New-York, from Jan. 1, to June 18, in the years 1852 and 1853.

	1852.	1853.
Wheat flour, bbls.	525,577	605,696
Corn Meal,	23.731	22,268
Wheat, bu.	656,873	1,194,119
Oats,	3,630	23,925
Corn,	521.160	562,790
Pork, bbls.	18,307	36,113
Beef,	24,314	30,365
Cut meats, lbs.	1,056.498	4,632.995
Butter,	295,366	813.256
Cheese,	395,288	1,956,017
Lard,	1,140,154	3,900,663

The American Institute will hold their cattle-show this year, on the 19th, 20th and 21st days of October, at Hamilton Square, between 3d and 4th Avenues, about four miles from the City Hall, New-York. The show-yard will consist of about ten acres, and the accommodations for the stock superior to those of past years. The Plowing and Spading Matches will be held at Flatbush, on the 11th Oct. The Horticultural exhibition will open at Castle Garden, Oct. 5.

☞ The Hon. Chas. Mason, Commissioner of Patents, will please accept our thanks for the Patent Office Report for 1851—2 Vols.—Vol. 1, Mechanical—2, Agricultural. These Vols. are issued in a much more creditable style than any of the preceding Reports which have fallen into our hands.

The Farmer's Song.

Composed by J. G. Saxe, Esq., and arranged to music by Prof. T. Wood, and sung by "The Amphions" at the Sheep Shearing Festival of A. L. Bingham, Esq. (of West Cornwall, Vt.) at the Hotel of James K. Hyde, in Sudbury, Vt., June 1st and 2d, 1853.

Have you ever heard of the farmers,
Who live among the hills,
Where every man's a sovereign,
And owns the land he tills.
Where all the girls are beautiful!
And all the boys are strong!
Oh! 'tis my delight of a summer night,
To sing the Farmer's song.

'Tis here the tall and manly
"Green mountain boys" are seen,
(So called because the *Mountains*
And not the *Boys* are *green*.)
They'll always fight to win the right,
Or to resist the wrong.
Oh! 'tis my delight, &c.

And here the best and fairest
Of Yankee girls are caught,
With every grace of form and face
That ere a lover sought—
And every art to win his heart,
And hold it long and strong.
Oh! 'tis my delight, &c.

'Tis here the "Morgan" horses,
And "Black Hawk" steeds abound;
For grace and beauty, strength and speed,
Their equals can't be found—
They always "go it" fleetly,
They always "come it" strong!
Oh! 'tis my delight, &c.

And here the true Merinos,
Of pure imported stock,
Are often seen to range the green,
In many a noble flock—
Their forms are large and beautiful,
Their wool is fine and long.
Oh! 'tis my delight, &c.

You've often read of the wonders,
Of ancient Rome and Greece,
Of Jason's expedition,
To get the golden fleece—
Alonzo's got the fleece away,
And brought the sheep along!
Oh! 'tis my delight, &c.

Oh! here's success to Bingham!
And all true shepherd men—
May Heaven keep himself and sheep,
Till shearing comes again—
And then may we be there to see,
And help the sport along,
Oh! 'tis my delight, &c.

And now a health to the shearers,
And many joyous years—
Whose hands with will and ready skill,
Propel the busy shears—
With hearts sincere and conscience clear,
Our voices loud and strong.
Oh! we'll take delight from morn to night,
To sing the shearers song.

Information Wanted.

Ground Mice.—Can any of your correspondents inform the readers of the Country Gentleman, how to destroy ground mice. They are injuring my thorn hedges to such an extent, that I think it useless to plant any more unless these pests can be destroyed. A. W. C. *Coshocton, Ohio.*

Steaming Apparatus.—You will confer a favor upon one of your readers, by making known through your papers, the best mode of erecting a steaming apparatus for cooking food for hogs. Orange. *Middletown, N. Y., June* 18, 1853.

Vinegar.—I would like to be informed through your paper, of the best plan of making good Vinegar from cider, in a short space of time. I have seen a recipe for making good Vinegar in a few days, but have forgotten what it was. E. S. S.

Shepherd Dogs.—Can you inform me where a pair of Shepherd dogs can be purchased—their price, size, age, &c.? If so, I should feel greatly indebted to you for your kindness. C. L. R. *Fairfield, July* 11, 1853.

Chorlton's Cold Grapery.—Sir: having seen an advertisement of a book entitled the Cold Grapery, by William Chorlton, if you will be so kind as to inform me where it can be purchased, and the price of the same, you will much oblige Uriah Oakes, Jr. *South Malden, Mass.*

We have been applied to frequently for the above work, but it has not as yet appeared in our bookstores. Mr. Chorlton, or his publisher should let the public know where it can be procured.

Agricultural Societies.

Exhibition of the Vermont State Ag. Society.—The Annual Exhibition of the Vermont State Agricultural Society, will be held at Montpelier, on Tuesday, Wednesday, and Thursday, the 13th, 14th, and 15th of September, 1853.

An area of forty acres will be enclosed for the exhition, and within the enclosure suitable structures will be erected, and arrangements made for the accommodation of all who wish to exhibit either animals or articles. Fresh water forage, consisting of hay, grass, green oats, and corn stalks, for cattle, horses and sheep—straw for littering, and oats for feeding horses, and grain for swine and poultry, will be supplied free of charge, to such exhibitors as choose to keep their animals on the grounds enclosed; and exhibitors of valuable horses, desiring barn accommodations for the same, may procure them in the village at a reasonable expense.

Exhibitors must become members of the Society, and must have whatever they intend to exhibit entered on the Secretary's books on or before Tuesday, the 13th of September. It is quite desirable, however, that the entries should be made at least as early as Monday, the 12th.

Persons residing out of the State, may compete for premiums on foreign stock, plowing, agricultural implements and machines, the various manufactures named in the Premium List of the Society, under the head of Discretionary Premiums; and may make entry of animals or articles of any class, for exhibition merely, which will be admitted within the enclosure for that purpose, if deemed worthy by the Executive Board.

Arrangements have been affected with all the Railroad Companies in Vermont, to carry all animals and articles for exhibition, to and from the Fair free of charge, and without changing cars; and visitors each way at half fare.

Gentlemen from the States, and from the Canadas, are cordially invited to participate in the exhibition.

Communications may be addressed to J. A. Beckwith, Corresponding Secretary of the Vermont State Ag. Society, Middlebury Vt., or to his agent, E. P. Walton, Montpelier, Vt. Frederick Holbrook, Prest.

J. A. Beckwith, Secretary.

New-York State Ag. Society.

Executive Meeting, Saratoga Springs, July 7, 1853.—Present—Lewis G. Morris, Pres't; J. Beekman Finlay, Vice Pres't; J. A. Sherman, Charles Morrell, J. T. Blanchard, Executive Committee; B. B. Kirtland, Treas.; B. P. Johnson, Sec'y.

Letters were received from Messrs. Vail and Kelly, regretting that they were unable to be present.

Minutes of last meeting read and approved.

The list of Judges was taken up, and vacancies filled, and delegates appointed to corresponding State Societies.

The President presented a letter from the Hon. W. C. Rives of Virginia, announcing his acceptance of the invitation presented to him to deliver the *annual address* at the Fair.

On motion of Mr. Johnson, Resolved, That Prof. John Wilson of London, one of the Commissioners from Great Britain to this country, be requested to deliver, during the Fair, a lecture on the subject of the culture of Flax, and its preparation for manufacture.

The Secretary was directed to present, on behalf of the Society, to the *New-York State Agricultural College*, a set of the Transactions and Journal of the Society.

The following gentlemen were elected corresponding members of the Society:—

Prof. Loon Falkersabouf, Member Agricultural Society of St. Petersburgh, Russia; Prof. John Wilson, F. R. S. E.. London; His Ex. Alexander Bodisco, Minister from Russia.

J. Beekman Finlay, of Saratoga, made himself a life member of the Society.

The following Superintendents for the various departments of the Fair, were appointed:—

General superintendent of the grounds,...	John A. Corey.
Cattle department,..........................	Thomas Bell.
Horses, ...	J. T. Blanchard.
Sheep,..	Charles Morrell.
Swine,..	Joseph Daniels.
Poultry,..	O. L. Barber.
Floral Hall,....................................	A. F. Chatfield.
Vegetable Department,......................	Israel Denio.
Manufacturers' Hall,........................	Lewis E. Smith.
Mechanic's Hall,..............................	Wm. Platt.
Implement department,......................	Moses Eames.
Plowing match,................................	Silas G. Smith.
Marshall and Chief of Police,.. ...	Henry H. Hathorn, Sheriff, Saratoga.
Committee of Reception of Guests and Strangers,....................	Hon. R. H. Walworth, " John A. King, Wm. Kelly, Esq. J. Beekman Finlay,
To assign places to visitors,........	Gideon Putnam.

Application for places for stock previous to the Fair.—J. A. Corey of Saratoga, will give attention to any requests that may be made. G. W. Cole, Agent of railroads at Saratoga, will attend to all stock and articles consigned to his care, provision being made by the persons sending things for any expense incurred.

Committee on the Part of Citizens of Saratoga.—*Of Finance*—Henry H. Hathorn, James M. Marvin, J. T. Blanchard.

Of Correspondence—J. A. Corey, J. Knickerbocker, Jr., G. W. Wilcox.

The specifications for the enclosures, erections and arrangements of the building, tents, and other fixtures, supply of water and fodder for stock, &c., to be provided by citizens of Saratoga, were presented by the Secretary and approved by the board.

B. P. Johnson, Sec'y.

Mr. Finlay invited the board, after the session was closed, to examine his premises near the village, and the members of the board and other gentlemen visited Mr. Finlay's place, and were highly gratified with the admirable arrangements of his barns and stables, as well as his grounds. They are well worthy of a visit from all who may desire to know how these valuable departments of the farm may be both economically and systematically arranged, so as to furnish every desired convenience for stock—"everything in its place, and a place for everything"—is the motto here, and most completely carried out. Mr. Finlay has two very extraordinary heifers, 14 months old, nearly the size of ordinary cows, a cross of the Short Horn and Dutch breeds. One of these heifers has quite a bag, and is giving milk; she has been kept upon the farm since she was dropped, and has had no access to a male. This is a very remarkable case, the like of which has seldom, we believe, been noticed.

The board visited the show grounds, and were highly gratified with the selection. The interest manifested in Saratoga, in relation to the approaching Fair, gives assurance, that the most ample preparation will be made, and the arrangements of the grounds superior to any heretofore prepared for the Society; covering for all the stock will be prepared on the grounds, so that no exhibitor need take his animals from the grounds during the Fair. The intelligence from every part of the State is such as to warrant the expectation, that every department will be fully represented. Northern New-York will make such an exhibition as never has been made from that section of the State—and the assurances from the adjoining States, are such as to leave no doubt that the best of their choice stock and articles will be on hand, and in abundance.

The arrangements for the accommodation of visitors will be most ample, and such as to leave no cause of complaint. The village has largely increased in its hotel and other accommodations, since the Fair in 1847, and the citizens unite with the public establishments in furnishing accommodations to all who may be present.

STEUBEN COUNTY.—At a meeting held at Bath, on the 22d of June, a County Agricultural Society was organized, a constitution adopted, and the following officers elected:—

President—G. DENNISTON, Prattsburgh.

Vice Presidents—1st Assembly District—O. F. Marshall, Wheeler; John B. Mitchell, Wayne. 2d Assembly District—A. B. Dickinson, Hornby; Lyman Balcom, Campbell. 3d Assembly District—Redmon S. Davis, Greenwood; John Van Wie, Howard.

Treasurer—George Edwards, Bath.

Cor: Sec'y—R. B. Van Valkenburgh, Bath.

Rec. Sec'y—George S. Ellas, Bath.

List of States Fairs for 1853.

Vermont,	Montpelier,	Sept'ber,	13, 14, 15.
Kentucky,	Lexington,	“	13, 14, 15, 16, 17
New-York,	Saratoga,	“	20, 21, 22, 23.
Ohio,	Dayton,	“	20, 21, 22, 23.
Pennsylvania,	Pittsburgh,	“	27, 28, 29, 30.
Michigan,	Detroit,	“	28, 29, 30.
Wisconsin,	Watertown,	October,	4, 5, 6, 7.
N. Hampshire,		“	5, 6, 7.
Maryland,		“	25, 26, 27, 28.
Indiana,	Lafayette,	“	11, 12, 13, 14.
American Institute,		“	19, 20, 21.
Virginia,	Richmond,	Nov'ber,	1, 2, 3.
Lower Canada Board of Agriculture, Annual Exhibition,		Sept'ber,	27 to 30.
Upper Canada,		October	5 to 7.
Southern Central Ag. Society, Augusta, Georgia,		“	17 to 20.

County Fairs—1853

Herkimer, at Illion,	Sept'ber	27, 28.
Onondaga, at Syracuse,	“	14, 15, 16
Oneida, at Utica,	“	13, 14, 15
Jefferson, at Watertown,	“	13, 14.
Wayne, Newark,	“	7, 8.
Dutchess, at Wash'ton Hollow,	October	4, 5.
Albany at Bethlehem Center,	“	5, 5, 6.

☞ The *Ohio Cultivator* of July 1st, states the culture of the grape is still progressing around Cincinnati, and that the prospects of the present crop are favorable.

NORTH CAROLINA.—At a meeting of the N. C. State Ag. Society, recently held at Raleigh, the preparatory measures for holding a State Fair, were adopted. It was resolved to locate the Fairs permanently at Raleigh, the City Council having resolved to contribute $2,500 toward the purchase of suitable grounds, and the erection of the necessary buildings for the exhibition. The Fair for this year, is to commence on the 18th of Oct.

Horse Powers, &c.

E. W. BADGER & Co., Manufacturers of Badger's Patent Horse Powers, Threshing Machines & Separators, Circular and Cross Cut Saws, &c., Fly Creek, Otsego County, N. Y.

List of Prices, 1853.

Two horse Power, Thresher, Separator, Bands, &c.	$145
One horse do do do do,	120
Circular Saw Mill,	35
Cross Cut do	25
Thresher,	25
Separator,	10

All articles warranted. For further particulars address E. W. Badger & Co., Fly Creek, Otsego Co., N. Y.
July 1—w1t—m1t.*

A Partner Wanted.

THE Proprietor of a valuable invention, for which Letters Patent of the United States have already been secured, being unable for want of capital, to bring his invention before the public, desires to form a Partnership with some respectable person who has both time and means to devote to the introduction of the invention which, if properly managed, can scarcely fail of being exceedingly profitable.

Any desired information relative to the invention referred to may be obtained by addressing a line post paid to "Patentee" at this office. July 21—tf.

Gifford Morgan Colts.

I HAVE two Stallion Colts, both by *Old Gifford Morgan*, viz: One a four year old the 18th of July next, a dapple chestnut color—dam by the Genl. Hibard—grand dam by Bullrush. The second three years old 30th of April—color mahogany bay—dam by Green Mountain Morgan, from a Messenger mare. He is a brother to Morgan Chief, owned by Ackley & Gilbert of East Hamilton, N. Y. Both very perfect colts. I will sell either of them. C. BLODGETT.
Waterbury, Vt., May 27.—22—1t—m1t.

Spring Chickens,

HATCHED in March last, of the following breeds:—Bramah Pootras, Buff, Black and Grey Shanghais, Royal Cochin Chinas, Malays, and Great Javas. I have a fine lot of the above for sale, at reasonable prices, which I will warrant pure, and as fine as any in America.

Address J. W. PLATT, box 128, P. O.,
July 7—w2t—m1t* Rhinebeck, N. Y.

Premium Agricultural Works, Albany, N. Y.

THE subscribers, proprietors of the above Agricultural Works, are the sole manufacturers of *Dederick's Patent Parallel Lever and Horizontal Portable Hay Press.* This press was illustrated in the 16th No. of the Country Gent., and the June number of the Cultivator. Since that time, some very essential and valuable improvements have been made. A new and improved capstan has been invented, by which the horse (without being removed from the sweep) operates the press, both in packing the bale, and drawing back the follower, thereby dispensing with the windlass for drawing back the follower by hand. The horizontal press illustrated in the 14th No. of the Country Gent., and the May number of the Cultivator, and *represented* as "H. L. Emery's portable hay press," is the horizontal press as first invented by Mr. Dederick, and exhibited at the New-York State Fair, held at Utica in Sept. last, and was published by said Emery without authority or consent. The Horizontal Press, as since improved, and at present manufactured by us, is universally admired and approved. Its advantages, compared with the upright or vertical portable press, are too numerous to be specified in a limited notice. Descriptive circulars will be promptly sent upon application. We warrant these presses in all cases, to give satisfaction or to be returned. Orders solicited and promptly filled

DEERING & DEDERICK,
Corners of Bleecker and Franklin sts., Albany.
July 21—w29—mtf.

The Cheapest Family Paper in the Union!

THE DOLLAR NEWSPAPER,

PHILADALPHIA.

Price to Single Subscribers, ONE DOLLAR—To Clubs still less.

Thus: for $5, *six copies;* $10, *thirteen copies;* $15, *twenty copies;* $20, *twenty-seven copies;* $25, *thirty-four copies;* $30, *forty-two copies;* $35, *fifty copies.*

It is a Newspaper for the Farmer, the Mechanic, the Merchant and Laborer.

THE publishers spare no efforts to make the "Newspaper" an instructive as well as an entertaining companion for the Farmer and his family. It contains, weekly, about two columns of original articles on Agricultural subjects, and as they are mostly from practical farmers, are highly appreciated by all classes of readers. Much profit, we learn from all quarters, has been derived from the perusal of this department of the paper. In the course of the year the Agricultural matter of the "Newspaper," if bound up together, would form a good sized book volume, worth more than the cost of a year's subscription.

As a vehicle of the LATEST NEWS, the Newspaper is believed to be without a rival among the weekly Press. It is published on a pair of mammoth machines capable of printing 20,000 impressions each per hour. By the use of these machines the columns of the paper can be kept open to the latest have for news, and until within a few hours of the date of the paper, whereas most other Family papers beingprinted by slow presses go to press several days before the day of their date, thus of course omitting the news. To maintain the excellence of its literary department, the proprietors

OFFER $500 IN PRIZES

For the Four Best American Stories that shall be furnished by the 15th of November, 1853.

For the Story decided to be the best,..................	$300
For the Story decided to be the second best,..........	100
For the Story decided to be the next best, ...	60
For the Story decide to be the next best, ...	40

The merits of the several contributions offered will be passed upon by as competent a committee of literary gentlemen as the publisher can command, the names of which committee shall be given to the public at the time of announcing the award. The only restriction imposed on the writers is that the scene of the stories shall be American.

In case sufficient merit is not discovered in any of the productions offered to warrant an award, all the stories may be reclaimed by their authors, but if the award of premiums is made, it is understood that all the contributions received shall belong to the proprietors of the paper.

The stories should be directed under seal "To the Committee of Decision," care of publishers of Dollar Newspaper, with a scaled note containing the name of the story, and the name and address of the writer.

AS AN ADDITIONAL PREMIUM,

The Publishers renew the offer originally made by them to Post-Towns, as follrws:—

"That Post-office of any town in the Union, from which we shall receive the greatest number of subscribers to the Dollar Newspaper, during the year between the first of June, 1853, and the first of June, 1854, (the papers to be mailed to such post-office, or to subscribers through it,) shall be entitled to a continuance of the whole number of the subscriptions, gratuitously, for one year after the expiration of the year for which their subscriptions shall have been paid. The papers will be continued on, either to the subscribers themselves, or to the agents through whom we way receive the orders for quantities, and to whom the package or packages may be directed, or to both, if there should be both in the same town, as the case may be."

THE DOLLAR NEWSPAPER

Is printed on a large imperial sheet of white paper, with entirely new type, of fair, full face, and small body, by which the largest amount of reading may be crowded into the smallest space. It thus presents an appearance as handsome as any other; and while it can be as easily read, contains as much reading matter as any of the largest weekly papers, though costing only half as much.

A. H. SIMMONS & CO. *Publishers*,
S, W. corner of Third and Chestnut sts., Phila.

July 21—w&m1t*

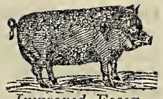
Grey Chittagong Fowls.

PURE blooded Chittagong Fowls and Eggs for sale, by
W. BARNES, Bristol, Conn.

April 6—m3t*

Suffolk.

SUFFOLK and Essex Pigs,



Improved Essex.

PURE BRED, for sale by
July 22—m3t

B. F. KEYES,
Dedham, Mass.

United States Agricultural Warehouse and Seedstore

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine —also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, arm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers Jan 1, 1853—m&wtf

---

Manures.

PERUVIAN GUANO, $2\frac{1}{4}$ to $2\frac{1}{2}$ cents per pound.

BONE DUST, when taken in equal quantities, $2.25 per barrel.

BONE SAWINGS, separately, $2.50 per barrel.

PLASTER, $1 to $1.25 per barrel.

POTASH, $3\frac{1}{4}$ to 4 cents per pound.

CHARCOAL, $1 per barrel.

SULPHURIC ACID. $2\frac{1}{4}$ to $2\frac{1}{2}$ cents per pound.

SUPERPHOSPHATE OF LIME, $2\frac{1}{4}$ cents per pound.

WOOD'S RENOVATING SALTS, one cent per pound.

For sale at the State Agricultural Warehouse, No 25 Cliff-street, New-York. LONGETT & GRIFFING.

Feb. 1—ctf.

Agricultural Implements.

STRAW AND STALK CUTTERS—of all patterns.

CORN MILLS—both of Iron and Burr Stone.

CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.

ROAD SCRAPERS—of several patterns.

FANNING MILLS—of all the best makers.

SAUSAGE STUFFERS AND CUTTERS—of all patterns.

VEGETABLE OR ROOT CUTTERS—of approvedkinds.

CORN SHELLERS—for hand and horse power.

VEGETABLE BOILERS—of Mott's and Bent's patterns.

GARDEN AND WHEEL BARROWS—of iron and wood.

HAY AND COTTON PRESSES—Bullock's patent

BRICK MACHINES—of Hall's and other makers.

WAGONS AND CARTS.

PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam PLOWS—Eagle, Massachusetts make, and Minor & Hortons.

For sale at the State Agricultural Warehouse, No. 25 Cliff Street, New-York. Nov. 1—tf.

Devon Bull Red Rover for Sale.

RED ROVER is a full blooded North Devon Bull, bred by Geo. Patterson of Maryland; was sired by his superior imported bull Eclipse. His dam was "Venus," an imported cow of Geo. Patterson's, sired by Lord Leicester's bull Anchisis. Red Rover was calved June 28th, 1844, and has taken the following premiums:

The 1st premium at Poughkeepsie, as the best bull calf
The 1st " at the American Institute the same year.
The 1st " as the best 1 yr. old, 2 yr. old, 3 yr. old.
The 1st " at the N. Y. State fair in 1847.
The 1st " at the Hartford Co show in 1848.

THOMAS GOULD.
July 1—m3t. Aurora, Cayuga Co., N. Y.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y. Braintree, Mass

To Flax Growers.

THE subscriber has invented and builds to order, a FLAX MACHINE, which, attended by two hands, is guaranteed to dress from three hundred to four hundred and fifty pounds of flax per day. The saving in labor and tow, by comparison, is considered equivalent to the cost of dressing flax by the best common machinery, used in this country and Europe. The new machine is made with care, to secure strength and durability, and can be run at a speed which requires more than two hands to attend it. Unrotted flax straw can be dressed by it. It can be driven by horse power or otherwise; and, being portable, can be sent any distance. For the present, the price of the machine complete, is $400. Those who wish to obtain it in season to begin operations next autumn, will do well to apply soon.

S. A. CLEMENS.
Springfield, Mass., March 9, 1853.—mtf.

Albany Tile Works,

Corner Patroon and Knox Streets, Albany, N. Y.

DRAIN TILE of the following descriptions and prices, suitable for land drainage, always on hand, in large or small quantities, of the first quality, delivered at the Docks and Railroad Depots free of cartage.

Horse Shoe Tile.

4½ inch calibre, $18 per 1000 feet.
3½ " " $15 ".
2½ " " $12 "

Sole Tile or Pipe.

3 inches calibre, $18 per 1000 feet.
2 " " $12 "

Horse Shoe Hand Tile, 8 inches calibre, for drains around dwellings, at $8 per 100 feet. Sole Tile, 4 inch calibre, for sink drains, at $4 per 100 feet—9 and 6 inch square, polished face Floor Tile, less than one-fourth the cost of marble, for basement floors and cellar pavements—9 and 6 inch square Bakers' Tile, for oven bottoms. Orders from a distance will receive prompt attention. A. S. BABCOCK.
Albany, April 14, 1853—16—13t—e6m.

Atkins' Self-Raking Reaper.

THIS machine is now offered to the public and warranted to be a good self-raking reaper. It is also believed to be a good mower, but not yet having been sufficiently tested in grass (though it soon will be) it is not warranted to be equal to a machine made mainly or wholly to mow.

The raking apparatus is of novel and very simple construction, and not liable to derangement, and every farmer who has seen it in the harvest field, says it performs the raking better than a man can possibly do it.

Price of machines at Chicago, $175, of which $75 must be paid on giving the order, $50 upon successful trial, and $50 in note payable 1st December.

The machines are most thoroughly built and warranted.

☞ Descriptive circulars, with cuts, sent to post-paid applications. J. S. WRIGHT.
"Prairie Farmer" Warehouse Chicago.
June, 1853.—25—w13.—m3t.

A Virginia Farm For Sale.

PLEASANTLY situated in Fairfax county, 13 miles from Alexandria, 16 miles from Washington, and about 1½ miles from Lee station, on the Alexandria and Orange railroad, a farm of 218 acres, about one-half intervale or bottom land, the residue a gentle swell of upland. It is admirably adapted to grazing, and is well watered with two small streams of never failing water, and is capable of producing excellent crops of corn, wheat, potatoes, grass, &c. The location is healthy, and the markets as good as any in this country. On the premises is a young and thrifty orchard of 125 apple trees, 25 peach trees, pear, cherry trees, &c. Also a timber lot of 20 acres, (hard-wood,) and 50 acres second growth pine, which will yield 40 cords per acre, worth $2 per cord at the railroad, 1½ miles distant. There is a small dwelling house and other buildings on the farm. The fences are tolerable, 2000 new chestnut rails having been added to the fences within two years. Price $10 per acre; one half in hand, the balance in two years. Persons desirous of examining the premises, will call upon Ansel Whedon, Agent, near Lee station. For further information, address

A. & O. WHEDON.
March 18—w2—mtf. West Pawlet, Vt.

Fancy Lop-Eared Rabbits.

I HAVE now about ready for delivery, a few pairs of fine English *Fancy Lop-eared Rabbits*, from stock imported by me directly from London and Dublin. Gentlemen, or amateurs, desirous of obtaining fine young stock purely bred, can address GEO. P. BURNHAM,
June, 1853—w3t—m3t. Box 22, P. O., Boston, Mass.

Super-phosphate of Lime.

IN bags and barrels, made by C. B. DeBurgh, a warranted pure and genuine article, for sale by

GEO. DAVENPORT,
No. 5 Commercial, corner of Chatham-st., Boston,
Agent for the manufacturer, with directions for use.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.
April 7—14—1t—mtf.

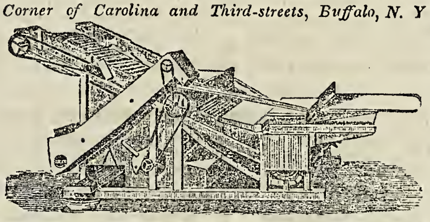
Valuable Farm for Sale.

THE subscriber offers for sale four hundred and fifty acres of land, being a part of his homestead, and comprising two hundred acres of as desirable land as any in Addison county—lying on the main road four miles north of Vergennes on the border of Lake Champlain, and one mile from the Railroad Station. It is under good cultivation, and furnished with commodious buildings. The remaining 250 acres is wood land; a portion of it covered with a heavy growth of hemlock and other valuable timber, and the remainder with the best quality of wood for fuel. The property will be sold together or in parcels. Postpaid inquiries promptly responded to.

ROW'D T. ROBINSON,
Aug. 1—tf. Ferrisburgh, Addison co., Vt.

Agricultural Implement Manufactory,

Corner of Carolina and Third-streets, Buffalo, N. Y



PITTS' PATENT SEPARATOR——IMPROVED DOUBLE PINION HORSE POWER—PITTS' CORN AND COB MILL &c.

I HEREBY give notice, that since the extension of the Patent right on my machinery for Threshing and cleaning grain, I have removed to Buffalo, N. Y., where I have permanently located, and erected a large establishment for the future manufacture of the above machines.

The Separator has been enlarged, improved, and rendered more permanent and durable in all its parts—while the Horse Power, for strength, ease, durability, and cheapness of repair, is not surpassed by any in the United States. This Power is warranted to stand the full strength of eight horses, also to give as much effective or useful power when driven by one or two horses, as any other Horse Power, whether constructed on the endless chain or lever principle.

It was put on trial at the great exhibition of Horse Powers and Threshing Machines, at Geneva, in July last, 1852, where it received the New-York State Agricultural Society's first premium "*for the best Horse Power for general purposes.*"

The Separator, at the same trial, also received the Society's first premium. My machines will thresh and clean from three to five hundred bushels of wheat per day, and other grain in proportion.

Two hundred of the above machines are for sale at the Agricultural Works of the subscriber, in this city, all warranted to be a better article than can be purchased at any other shop, and if they do not prove on trial to be so, I will take them off the hands of the purchasers, at the price they may pay me for them.

I further notify all persons, who are purchasing Horse Powers and Separators to be used in California or Oregon, that I will hold them accountable for any infringement of the rights secured to me by letters patent in the above machines, as I am manufacturing a Horse Power and Separator expressly designed for that section.

All orders for the above machines, hereafter, addressed to the subscriber, will receive prompt attention.

JOHN A. PITTS, Buffalo, N. Y.
April 14—16—1am—e6m

Contents of this Number.

Rotation and Good Management,. 233
Grain Crops in New-Hampshire—Salting Hay, by Oberver,.. 234
Fancy Rabbits, by G. P. Burnham—Practical Farmers—Farming on Long Island, by G. T. Hammond, 235
Smokey Chimneys, by S. W. Jewett,.............. 236
Toll-Houses—High Culture and Heavy Crops,....... 237
Box for Sanding Buildings, by A. S. Moss—Profitable Crop of Hops, by H. P. Potter—Making most of the Soil, ... 238
Apples for Milch Cows, ... 239
Hickok's Improved Cider Mill—An Example of Ingenuity,.. 240
Cross-Production of New Varieties of Wheat,....... 241
Opening of Crystal Palace—Successful Trenching and Subsoiling, ... 242
Cheap Fences—On Salting Hay and Cattle, by A Subscriber—Transmutation of Plants,. 243
Root Crops and Straw for Cattle—Stripping the Osier, by P. Schmitz—Neutralising Offensive Odors, ... 244
Manufacture of Cheshire Cheese,. 245
Fine New Cherries,. 248
Black Knot on the Plum—Watering Trees and Plants, 249
Mildew on the Grape—Remedy for Black Knot—Late Sown Vegetables,.................................. 250
High Culture—Curl in the Peach—Manuring Orchards —Amateur and Window Gardening, by E S....... 251
Sowing Garden Seeds in Autumn—American Grapes, 252
Importation of Stock,.............................. 253
Points of Excellence in Cattle, ... 254
The Staggers in Swine—Right Education of Horses, 255
Domestic Uses of the Peach 256
Notes for the Month,................................ 257
The Farmer's Song, by J. G. Saxe,................. 259
Information Wanted—Ag. Societies,................ 260

ILLUSTRATIONS.

Fancy Rabbits, ... 235
Toll-House, ... 237
Box for Sanding Buildings, ... 238
Hickok's Imp. Cider Mill, 240
Crystal Palace, ... 242
Cheap Fences,..e...... 243
Fine New Cherri.s,.... 248
do do 249
Spanish Merino Bukc,.. 254

Hickok's Patent Improved Cider Mill and Press.

WE have been appointed sole agents of this Mill and Press in the city of New-York. This is the most approved mill now in use. Catalogues, with description and drawing, will be forwarded by addressing us, post-paid.—Price $40. LONGETT & GRIFFING,
July 22—30—8t—m2t No. 25 Cliff-street, New-York.

Important to Breeders of Stock.

THE subscriber offers for sale, two thorough bred *Short-Horn* Durham bull-calves—one 20 months old, a beautiful roan color, splendid proportions, a descendant of the much celebrated "*Belted Will*," of England; the other about two months old—white, of unequalled symmetry and beauty, and is also a descendant of "Belted Will"—his dam was got by "Bellville," the champion of England, Scotland and Ireland, and was imported to this province in 1851, and the first of Mr. Hoppers' celebrated herd ever brought into Canada:—Also, two other calves, of the same unequalled breeding, three weeks old. Satisfactory certificates of pedigree will be furnished. For further particulars, application may be made to RALPH WADE, Spring Cottage,
July 7, 1853.—w1t—m2t. near Port Hope, Canada West.

Improved Portable Cider Mill and Press.

HICKOK'S Improved Portable Cider Mill and Press, received following premiums in 1852, viz:—A Silver Medal at the Fair of the American Institute, New-York. Diploma at the Franklin Institute, Philadelphia. First premiums at the State Fair at Utica, and at the Columbia and Rensselaer county Fairs, and a diploma at the Westchester County Fair.

Descriptive circulars sent free to all post-paid applications. See page 23 of this paper, for engraving, &c. Price $40.
Manufactured by W. O. HICKOK,
Harrisburg, Pa.
Sold by LONGETT & GRIFFING, 25 Cliff-st., N. Y.
EMERY & CO., Albany.
DANA BROTHERS, Utica.
PROUTY & CHEW, Geneva.
HIGGINS & CALKINS, Castile, Wyoming County.
C. E. YOUNG, Main-st., Buffalo.
O. GREGORY, Binghamton.
CHARLES ASHLEY, Ogdensburg.
D. LANDRETH, Philadelphia.
July 14—w3m—m3t.

THE COUNTRY GENTLEMAN.

A Journal for the Farm, the Garden, and Fireside.

THE Country Gentleman has a four-fold purpose—1. To promote the interests of the Farmer, by furnishing him the most approved method of cultivating all his crops and of keeping his farm in a continually improving condition, together with the best mode of breeding and rearing all the Domestic Animals. The Farm Department is intended to be a reliable record of the present state of Agriculture in all parts of the world, and to contain suggestions for Farm management and economy.—2. To be a complete manual for the Gardener and Fruit Grower, and to give safe and specific directions for the culture of Garden Vegetables, and also information with regard to the Flowers, Shrubs, and Ornamental Plants, suited to the various sections of the country.—3. To supply the Fireside with a variety of instructive and entertaining reading of a high order, and yet suited to the capacity of every reader, to awaken a desire for knowledge and to cultivate a taste for Home Improvement and a love for Home Virtues.—4. To present a careful, concise and impartial Record of the Times, containing all the important events of the day and signs of the times, and thus to lay before country residents a brief and connected history of all the leading movements in the Social, Educational and Political World. In connection with this department, a weekly synopsis of the Produce Market, compiled expressly for the paper by a gentleman thoroughly versed in the business, will be given, which will be invaluable to every farmer who has produce to sell.

It will be the aim of the publisher to make the paper attractive and elegant in its typography and illustrations, choice and select in its contents—to make it indispensable to the Farmer, and desirable to every one who has a rod of ground cultivate, or a home to beautify—and by devoting its columns to Improvement in Agriculture, Elevation in Character, and Refinement in Taste, to render the Country Gentleman the standard in its sphere.

TERMS.—The Country Gentleman is printed in quarto form, on Thursday of each week, each number consisting of sixteen pages, and forming two annual volumes suitable for binding, of 416 pages each, at Two Dollars per year when paid in advance, or $2 50 if not paid in advance.

Those wishing to subscribe, will please forward Two Dollars to LUTHER TUCKER, *Publisher*, *Albany*, *N.Y.*,
☞ Specimens sent to all post-paid applications.

◆

The Second Volume commences with the first week in July, and we solicit for it the earnest efforts of our friends. Subscriptions will be received for six months, and those commencing with July will have a perfect volume, with title page and index, at the close of the year. We ask particular attention to the following:—

Terms.—*Payable in advance.*

One copy, one year, ...	$2 00
Three copies, one year, ...	5 00
One copy, six months, ...	1 00
Six copies, six months, ...	5 00

THE CULTIVATOR:

A MONTHLY JOURNAL OF

Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 CENTS A YEAR.

This standard Agricultural Monthly commences with the new year, its Third Series. It is published in the same superior style, and will now be more valuable than ever, as the choicest Agricultural and Horticultural articles in The Country Gentleman will appear in its pages. The price hereafter will be as follows:

Single copies, Fifty Cents—Eight copies $3—any larger number at the same rate.

All subscriptions must commence with the January No., and the payments must in all cases accompany the order for the paper. LUTHER TUCKER,
Publisher, *Albany*, *N Y.*

Postmasters and all friends of agricultural improvement, are respectfully invited to act as agents for The Cultivator and The Country Gentleman.

THE CULTIVATOR.

THIRD To Improve the Soil and the Mind. SERIES.

Vol. I. ALBANY, SEPTEMBER, 1853. No. IX.

False and Genuine Teachings of Science.

IT is well known that for many years past, and indeed at its commencement, the Cultivator adopted "Science with Practice" as its motto, and the same guiding principle has been maintained by the Country Gentleman, during the short period of its existence. Actual experiment has been assumed as the great and only test of the accuracy of all theoretical propositions. The real value of any proposed mode of culture, can be fully known only as its results are determined in actual practice. A chemist, for example, compounds a new manure from theoretical reasoning, which he is confident will exceed all other manures; but after actual and repeated trial, it proves a perfect failure. Now, which is to be the standard for determining its efficacy, the theory, or the practice? Can scientific reasoning satisfy even a *scientific* farmer, that this artificial manure exerts a highly fertilizing influence on his wheat-field, when actual trial and accurate measurement directly contradict such reasoning, and show that the difference of a single bushel per acre is never made by its application? Every man, learned and unlearned, professor and ditch-digger, will say unhesitatingly that the experiment itself, the amount of the crop yielded, is the *final test*.

Let no one answer that this is not an admissible instance, for the fact is well known that a case not unlike this really occurred in Europe but a few years since, under the direction of the most eminent physiological chemist of the day. It is true, that after learning much since that occurrence, through the teachings of practical cultivation, scientific men can *now* point out the theoretical fallacy in making the compound; but this is only an additional proof of the correctness of the position we have always maintained, that science must be *combined* with *practice* if we would reap its full benefit, and be able to apply its theories correctly.

There are interesting cases where some of the truths of science have been brought to bear in practice, by previous calculation, with the unerring precision of mathematics; and this is more especially true with mechanical philosophy. The architect or engineer determines beforehand the form of his structure best fitted to resist the greatest pressure; or he may determine the precise thickness of his wooden beams or iron shafts, to render his building or bridge safe from the danger of rupture and falling, without first trying the experiment of allowing his costly edifice to tumble down, till he sees what its parts will bear. So also in the application of chemistry to the mixing of medicines, to bleaching, and in many manufactures, where single combinations take place, and where all the minerals are entirely at the operator's control, he may know in advance just what to expect. But in the growth of plants, where the relations between the numerous chemical substances in the soil, and the many proximate elements of vegetables, are incomparably more intricate; where the combinations, instead of being rapidly formed right under the eye of the chemist, are the imperceptible work of whole months, and in so dark and concealed a manner that the keenest microscope can detect nothing of them; and where, in addition to all this, these very complex and minute processes are greatly influenced and sometimes even arrested by the external action of moisture and other causes in the changes of the weather, the investigation of soils becomes one of extreme difficulty and most commonly of much uncertainty. It is no wonder then that eminent chemists are at this day disputing on the operation of some of the most common mineral manures.

It must be obvious, therefore, that to obtain much practical benefit from the *analysis of soils*, everything must be thoroughly established by long, accurate, and repeated experiment. Yet, superadded to all the difficulties just mentioned, is still another of a most serious character,—the extreme minuteness of proportion of some important constituents. For example, phosphate of lime is known to be of great and essential importance to the wheat crop; yet so imperfect are the means for its detection in soil where but a ten-thousandth exists, that an eminent analyst did not even discover a *trace* in the most fertile wheat soil of America, by ordinary means. Again, the addition of a hundred thousandth part of sulphate of lime to the soil, has, in more cases than one, doubled the clover crop; and other ingredients in like proportion have produced striking effects; yet what chemist in an ordinary analysis, merely for a farmer's common practice, would be likely to point out the presence and quantity of these important but hidden substances, so that he might shape his management with confidence accordingly? Whatever future skill may develop, it would be folly to recommend such analysis as an infallible guide at the present day.

And yet we are told in a late number of an American periodical, of high pretensions to scientific infallibility, (the "*Working Farmer*,") in some two columns of argument or assertion, that the analysis of soils is a reliable guide, "within the reach of every intelligent farmer," and that in no instance can be found the failure of "well ascertained chemical knowledge," in this particular.

Independently of the extreme difficulty of procuring minute and reliable analyses for ordinary farming, and throwing out of the question that the greatest chemists are now disputing about the utility and action of some of the ingredients of the soil, rendering it certainly very difficult for common farmers to decide when doctors disagree,—independently of all these difficulties, there are many other controlling causes which may operate, requiring a great deal of caution at least, in reccommending these things for general adoption. We have been assured, for instance, by a thorough scientific and practical farmer, that he has found by thoroughly *grinding* his stable manure to *powder*, when applied to his clay soil, and then thoroughly *grinding it into the soil*, he gets about five times as much benefit from it, as by its ordinary application. So, likewise, it has been found that some of the most fertile western soils in the United States, were composed essentially, so far as analysis could discover, of the same ingredients and in the same proportion, as some quite sterile soils in Massachusetts—the only difference being in the extreme fineness of pulverization possessed by the particles of the former. Again, the degree of moisture has a most important influence in addition to all the preceding causes, as is shown by the fact that some soils which for a time have produced almost nothing valuable, when thoroughly underdrained, have become eminently productive. These, and other similar reasons, are sufficient to suggest an explanation of the fact recently stated in this paper by John Johnston, a very intelligent and skillful farmer, that a wheat soil on his farm, of extraordinary fertility, was pronounced *sterile* by a distinguished chemist who analysed it.

Now, no one will infer that we oppose the application of chemistry to farming in any particular, even in the analysis of soils; but that we urge its application in the only way in which it promises substantial benefit, and more especially in such a way as to prevent the failure, disappointment, and disgust, which must inevitably result from the false and superficial teachings we have just pointed out. The detection of counterfeit notes can be no injury to the genuine bank; the true interests of science are advanced by stripping delusive pretensions of their counterfeit colors.

The hasty and superficial way in which opinions are adopted, by first seeing a little, and then presuming a great deal, and finally jumping to the conclusion, has long been detrimental to the progress of agriculture. J. J. Mapes says, in his Working Farmer, in speaking of the benefit of the analysis of soils, "we assert without the fear of honest refutation, that after an experiment of some years, and a practice on many hunderd farms, we know of no exception," &c.—yet he nowhere gives us the results of those analyses in connection with the kind and quantity of the fertilizers, and the amount of crops before and after the treatment. Such reports would be of some real value—they would furnish the details of PRACTICE in connection with the suggestions of SCIENCE. We have had too much of indefinite assertion—and merely saying that certain processes have proved beneficial, without showing the amount, or without informing the public at all whether the whole supposed increase was not entirely from guess work, furnishing nothing satisfactory to those accustomed to form opinions from the demonstration of facts.

There are, however, many ways in which scientific knowledge may be applied with considerable certainty in agriculture. Among these we may name the application of mechanical principles in the construction of farm implements and machines; of hydraulics, in irrigation, draining, &c.; besides the numberless cases which are constantly occurring in daily practice, where most valuable assistance may be rendered. Great benefit has already been received from the analysis of manures, where fertilizing constituents are in a concentrated form, and useful suggestions are obtained from the analysis of plants. Science has rendered a most important service, by explaining and enforcing the reason of some of the best modern practices, previously established by experience. Rotation, subsoiling, underdraining, and most of the operations of modern improved agriculture, are indebted for their existence to the teachings of experience; but science has since thrown its light upon them, and shown the reason of their value. And as a *suggester* and *guiding light*, it will be looked to in all coming time as a valuable auxiliary; but the chemist who shall undertake to sit in his laboratory, and without practice to direct the labors of the field, is like the man who would attempt to run a locomotive on a single rail—he only shows that he has not yet crossed the threshold to true agricultural science.

Starving in the Midst of Plenty.

The man who should starve himself with a thousand bushels of wheat in his granary, or with a hundred barrels of potatoes in his cellar, because he knew not how to cook or convert them to food, would not commit a greater act of folly than some of our land-owners, who possess vast means of fertilizing their fields, which they never apply. We have been struck with the pointed remark of L. Clift, in his address before the Windham County Ag. Soc, that "*most men own a second farm, beneath their present surface, which has never been disturbed by the plow.*" We once knew a wealthy man, who had a fine farm in one of the best counties of Western New-York, and which he had cultivated on a bad system for many years, until some of the finest fields were reputed to be nearly worn out, and yielded poor or at best very uncertain crops. His land had usually been plowed about four inches deep, but occasionally "subsoiled," as the owner termed it, to six inches. A part of it fell into new hands, and it was immediately turned over to a depth of eleven to twelve inches by means of three yoke of oxen attached to a Michigan or double mould-board plow. An entirely new material was turned up to the light of day, consisting in part of the fertilizing calcareous subsoil, and in part of rotten leaves, decayed roots and black mold, which had never been reached before, presenting all the appearances of newly cleared land, and giving immediately a heavy growth in crops. In a neighboring county, an extensive and intelligent farmer assured us, that so great was the fertility of his subsoil that he would regard it as a favor could he have six inches of the upper soil completely carried off from his lands. Yet he never plows more than half a foot in depth, and does not subsoil or trench-plow, because he "cannot afford it." In some of the interior portions of the state, the soil is a light sand, which suffers drouth and sterility from a want of clay and marl. Now it happens that a large portion of this light and thin soil is underlaid at a depth of a foot or two with a strong calcareous loam, which might, at a very moderate expense, be thrown up from pits and spread in large quantities over the surface; and in some places it may be reached even by subsoiling and trench-plowing. One farmer accidentally discovered this subterranean bed of fertility, by spreading broadcast from a ditch for a few yards on each side, the earth taken from the digging. In an unfavorable season, when the rest of the field produced only four bushels of wheat per acre, the land adjoining the ditch, which had been dressed with the subsoil, yielded at the rate of twenty bushels per acre. Yet, to this day, the owner of the farm suffers this fertilizing subsoil to remain untouched and unreached. In other instances, there are extensive beds of peat and of marl, lying just as they have done for centuries, with the adjacent uplands starving for their beneficial influence, which, if not as great as that of yard manure, is at least much more permanent.

A late English agricultural journal, gives a few examples of great benefit derived from using the material of the subsoil:—

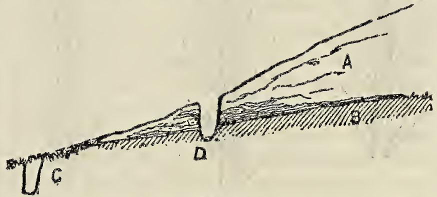
> We have in our mind's eye at this moment a case where a farm of moory land, but not high-lying, was purchased, including an excellent house, for about fifteen pounds per acre. The soil was a white, gritty sand, full of land springs; the surface had once been peat, but the poverty of the tenantry had induced them to pare off the peat from a great part of it, and thus it was left barren white sand to the top. Furze and rushes, with a little heath, was almost the entire produce of the land. The owner drained, at a cost of about three pounds ten shillings per acre, and clayed the whole, by digging ponds, at the rate of 200 loads per acre, or about five pounds more, and then sowed turneps and seeds, followed by wheat. The result was most successful, and the farm is now in good cultivation, and let, we should say, for 20s. per acre. We do not happen to know the exact rental, but it strikes us as being the probable amount. But more; the fences had been planted and died. The owner immediately renewed them by re-planting, manuring the quicksets with clay. They grew amazingly, and are now remarkably healthy and good fences.
>
> Mr. Gould's experience with sixty acres of light moorland, as detailed in the *Transactions of the Bath and West of England Agricultural Society*, bear strongly upon the point. He took the waste on a lease, pared and burned, and, in sinking a well, happened to take out some clay, which he carted into his eleven acre enclosure. The result was that his subsequent crop of oats showed a produce of 50 bushels per acre, and his unclayed not more than 30 bushels. The subsequent grass or clover on the clayed part was excellent, while not a plant grew on the unclayed. He then clayed the whole of the 60 acres at intervals, and in 16 years had applied 80 loads per acre—twice, forty—and the result has been most satisfactory in the whole, being rendered capable of growing good crops of corn, turneps, and grass, and is carried on in the four-course system.

It is not every subsoil, we readily admit, that possesses the remarkable qualities of those which have been mentioned, and no one should think of rushing blindly into an extensive experiment, before he has tested its probable value on a small scale. It should not, however, be forgotten, that many subsoils which at first present every appearance of sterility, are often so improved by exposure to the air, by pulverization, and by mixture with the surface mold, as ultimately to become very productive.

Position of Side-hill Drains.

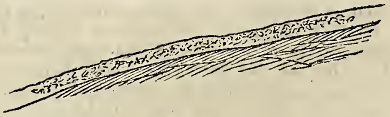
An erroneous opinion has prevailed in relation to the position of parallel drains on hill sides, the practice being common in some places of laying the channels sideways with the hill, with but little fall or current, instead of putting them directly up-hill so as to give a rapid descent.

There are some instances in which a drain cut sidewise will prove of great value. If, for example, a porous or gravelly hill (A, fig. 1,) rest on a water-tight hard-pan surface, (B,) the rain which falls upon the hill will immediately pass through the soil till it reaches the hard-pan, over which it will flow until it "crops out" at the surface and forms the marsh or wet ground at C. A ditch cut at D, parallel with the foot of the hill, and having a slight descent, will cut off these under-ground channels in a more efficient manner than could be done in any other way.



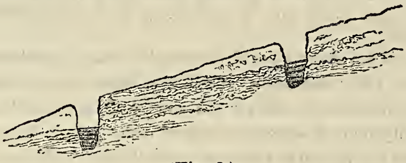
(Fig. 1.)

But it more commonly happens, in modern tile-draining, that a large, moderately sloping, and nearly uniform surface, is to be relieved of its surplus water, a large portion of which descends directly from the clouds, and another portion flows down from higher land through the plowed soil, resting at a nearly uniform depth upon a harder and more impervious subsoil, (fig. 2.) Now, if the drains are located sidewise with the hill, the descent will be so small that the water will not flow off freely, but will fill a considerable portion of the ditch, and consequently a large part, instead



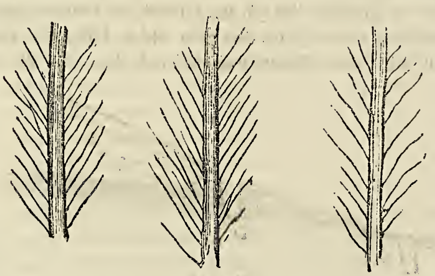
(Fig. 2.)

of flowing in the channel intended for it, will take the shortest cut of escaping through every crevice of the soil directly down the hill, thus actually irrigating or filling with water the soil immediately below the ditch, (fig. 3.) This will be undoubtedly the case if the soil and subsoil be in any degree of a porous nature, and the only exception occurs where the hard-pan beneath is perfectly water-tight, as in the case exhibited by fig. 1.



(Fig. 3.)

Modern experience has therefore proved the method of laying the drains directly up hill, in all ordinary cases, as decidedly the best. The water having a rapid descent, will be immediately carried off thoroughly and completely; much smaller tiles will accomplish the same purpose, and no water, after it has passed into the drain, can possibly enter the soil again below. Hence in draining a swale, or any portion of land lying between ridges, a single main ditch should be first cut along the bottom or lowest part, and the parallel secondary drains should then be so laid as to enter it nearly at right angles. Fig. 4 represents the course which the minute streams of water take through the soil while flowing towards these parallel drains, the descent for these streams being nearly as steep and rapid as if they flowed into horizontal drains, cut along the hill-sids, at the same time that the direct drains possess none of the disadvantages of those cut in a horizontal direction.



(Fig. 4.)

Oat Bread.

The celebrated Dr. Johnson was once asked for a definition of the word "oats," when he replied, by intending a slur upon the object of his prejudice, Scotland, —"It is a grain on which *horses* are fed in England, and *men* in Scotland!" A Scotchman present proved quite a match for the Doctor by instantly replying, "And where will you find such HORSES and such MEN?" —the English horses, even at that day, standing pre-eminent for excellence.

It appears that Dr. Johnson's own countrymen are just beginning to inquire into improved modes for manufacturing this same Scotch bread, in a form suited for genteel people, chemists having discovered that the farina of the oat supplies more nourishment of the muscles, bone, and blood of man, than any other vegetable substance. The London Farmer's Magazine states that a new process has been adopted for preparing flour from oats, as white as that from wheat. It is secured by patent, and consists essentially of first kiln-drying the grain, then separating the husk, and afterwards grinding it into flour. Experiments appear as yet to be too limited to judge of its value for gereral use, but it is said that specimens already prepared may be used for gruel, for the preparation of arrow-root, puddings of the lightest and finest quality, pancakes, tapioca, &c., and one experimenter states that "for puddings it is much superior to arrow-root, sago, and all such farinas." The correspondent of the Farmer's Magazine informs us that specimens of this flour, "were received on May 12, and the following day, a pudding, according to the given direction, was made with *two table-spoonfuls* of the flour. It was sufficient for five persons—thus proving the fact of a small quantity being requisite for the purpose."

Could not some of our smart countrymen—of corn-starch and meat-biscuit invention,—take hold of this oat-flour business, and make something out of it?

Cattle Gnawing Bones.

MR. EDITOR—I wish to inquire if you, or any of your numerous subscribers, can tell me why it is that my cows and other cattle have a liking to chew old bones that they find in the fields, that they will stand for hours and chew them; they will even leave their salt many times for this purpose. Please answer through the Cultivator. VIXEN. *May Flower, April*, 1853.

We can give no other reason than the appetite they acquire for some peculiar flavor possessed by the bones, or by the small remaining portions of muscle and gelatine which remains upon them. Animals sometimes show nearly as strong an appetite for certain substances, as some men do for tobacco. It has been said that the practice of chewing bones, arises from a natural instinct for phosphate of lime in such animals as do not get a sufficiency of this ingredient in their food, especially in those which are confined to old pastures which have exhausted the soil of its phosphate. This strikes us as exceedingly improbable, for to say nothing about the extraordinary analytical discrimination which this would evince, throwing in the back-ground the most delicate tests of the longest-headed professors, it so happens that the animal's teeth usually make no impression whatever upon the hard bone, and only get small portions of the more soluble gelatine, &c. To test this matter, observe whether cows will continue their liking for bones, after small portions of bone-dust or dissolved bones have been mixed regularly with their food. We have known some animals, and colts more especially, to have an extraordinary propensity to chew leather, yet we never could discover that such animals possessed any idiosyncracy, but merely a depraved appetite. Some horses have a strange propensity to gnaw wood whenever they can lay their teeth upon it, without any particular object or reason.

Drouth, Irrigation, and Liquid Manuring.

The recent extraordinary drouth, which prevailed in a large portion of the country, very naturally leads to the inquiry for remedies to prevent the disasters usually incident to such occurrences. When it is remembered that about 90 per cent of all growing crops, are, on an average, simply water, it will be no matter of surprise that vegetable growth should be either entirely suspended or else greatly retarded, and that in some in stances even the death of smaller crops should occur, when the supply of this very important element is entirely cut off. Not only is the supply withheld, but all the riches of the soil are as effectually locked up as in a case of iron, for there is nothing to dissolve its fertilizing portions, and to convey them to the vessels of the plant. Dr. Hales found that during a dry season a bunch of green grass placed under a bell glass, perspired so rapidly as to cause in two minutes the condensed moisture to run down its sides. No wonder then, that meadows and pastures, which in order to flourish, must continue to throw off moisture thus rapidly, now that they can get nothing to supply the demand, should look as parched and suffering as a caravan of pilgrims in the center of an African desert.

As for remedies, the first and great leading one, applicable to all localities, is *deepening the soil.* This operates beneficially in two ways; first, by permitting greater strength and vigor to the plants, so that they are not easily affected by changes from wet to dry; and secondly, by making the *reservoir* of water—the *sponge* —which is to receive and retain the showers when they fall, deeper and consequently more capacious, so as not to be easily exhausted by seasons of drouth. A soil only four inches deep, with a hard-pan bottom, must soon have its moisture dissipated when the sun's rays pour down upon it day after day for a month, or when the plants which cover its surface are continually for that period pumping the water out of its shallow bed and sending it off through the leaves in the form of insensible vapor into the air. But where the soil has been made deep by trench and subsoil plowing, a much longer time is required to exhaust this deeper reservoir of its water which the plants obtain by means of the long roots they send down, or by the capillary absorption of the upper portions from the moister stratum below, and which process a mellow soil always greatly facilitates. This remedy, of course, cannot be applied *now*, but is only a part of a general system of improved farming.

Other remedies, less universal in their application, but of great efficiency, where applicable, are irrigation, in its strict meaning, and liquid manuring. It is only in some particular localities that water is at command, which may be conveyed by channels upon the land; and to gardens and limited spaces, it may be applied to great advantage. European gardeners, in a much moister climate than ours, find extraordinary advantages from a constant application of water in large quantities, and there have been a few examples here where the admission of water between the rows of potatoes, and other garden crops, has produced surprising results.

Liquid manuring appears to be more particularly applicable to the neighborhood of towns and cities. Millions of dollars are annually wasted by the large quantities of enriching substances which are annually carried off and wasted in sewers. It has been computed that the city of London affords enough in this way to impart the highest degree of fertilty to three hundred thousand acres of land; and at the same rate of calculation New York would fertilize nearly a hundred thousand acres. The most surprising effects have lately been obtained from liquid manure in England, far exceeding those from any other enriching application. The reason is obvious—the manure is not only reduced to the *finest degree of division*, but the water which holds it carries it through all parts of a porous soil, and forms a more perfect intermixture than could be effected by any other means; at the same time that the water performs another most important office, namely, supplying the growing plant with the amount of moisture which it so largely needs.

There is no question that a highly diluted mixture of water and manure is the most perfect state in which to apply it; and in the case of sewage water, this mixture being already made, it can be applied in no other way. The question immediately arises, how is it to be conveyed to the land in the most economical manner? This is the most difficult part of the process, for it is far cheaper to cart a ton of solid manure, than the same amount of fertilizing materials with ten times their weight of water. A very important discussion lately took place on this subject in a meeting of the Agricultural Society of England, in which it was declared by those versed in hydraulics, and who had experience in the conveyance of water in pipes, that so great was the facility with which it might be conveyed in pipes by the agency of steam power, when compared with carting by horse labor, that the former could be effected at less than one-tenth the cost of the latter. One great difficulty, however, occurred from the fact that the liquid manure was most wanted on the dryer hills, which are least accessible, the towns being usually lower than the surrounding country; but this difficulty had been obviated by pumping up with a steam engine. Several distinguished and successful farmers had procured hydraulic apparatus for this purpose; one had placed a hydrant for every 40 acres of his land, another for every 11 acres, and another for every 3½ acres; from these hydrants a hose pipe issued, and was carried round in a circle, watering the whole surface regularly. Among these farmers was J. J. Mechi, well known by reputation to the farmers in this country, who, from a large tank, drove the liquid manure through pipes over his whole farm, employing for this purpose the farm engine, erected for his mill and thrashing machine.

The London Times furnishes the following account of the extraordinary success which has attended an experiment of this kind, and which must undoubtedly be attributed largely to this simple supply of *water*, as well as to the fertilizing influence of the manure. The statement of keeping *fifty sheep* per acre—almost ten times as many as our farmers think of pasturing—would draw rather hard on our credulity, were it not otherwise corroborated, and had we not already some extraordinary facts at hand of the enormous growth resulting from similar treatment :—

"At Myremill, in Ayrshire, Mr. Kennedy feeds under cover in the summer months 220 large oxen, 460 sheep, 20 horses, and 150 store pigs, on 90 acres of Italian rye grass. Last summer his house-fed sheep fattened better than in the field, and were kept on Italian rye grass for four months, at the rate of 56 head per acre! They likewise received a daily supply of steamed food. But allowing for this, we find that on this farm each acre of grass keeps about four times as much live stock as the average of the cultivated land of similar quality in England. Mr. Kennedy has attained his high state of fertility by the use of liquid manure distributed over the farm in pipes, and applied to the surface by the force of steam in a jet-like shower of rain. To use Mr. Mechi's graphic words, he can "increase his wet days" as he finds it necessary, and when other people's fields are parched with drouth, his are glistening with perennial verdure. Having an unfailing supply of water, he can either mix in his manure tank with a more enriching substance, and so shower it over the land, or he can sow guano broadcast over the grass, and then wash it in dissolved, or if nothing but moisture is needed he applies that only. No doubt such an apparatus requires a large stock both of capital and skill—the one to start it, and the other to conduct it. A most important experiment it is, however, and likely to lead to great reresults ere long."

This subject is yet in the infancy of its successful application,—a stage which every useful operation must first pass through before it can reach maturity. To what extent in practice it may yet reach, is hard to predict; but it would certainly be well worthy the efforts of enterprising men in and near cities, to provide tanks for the reception of the immense amount of wasted wealth in the form of sewage water, and pipes for its conveyance to the large plantations occupied as market gardens, where it is believed all judicious outlays would soon repay large dividends, in the fine and luxuriant growth they would soon occasion.

Root Crops.

A correspondent of Juniata co., Pa., inquires "the best time to sow carrots and ruta bagas; whether they are transplanted from a bed—and the time for gathering the crop."

Carrots should be sown as early as Indian corn is planted, or even sooner; if later, the crop is apt to come up unevenly from drouth. Ruta bagas should be sown early in summer. Both should be sown in drills where they are to remain, with a drill machine. If no drill machine can be had, drills must be made with a hoe, and the seed dropped from a tin cup, nailed to the lower end of a stick as long as a cane, and a hole made in the bottom just large enough to let out a supply of seed into the drill, as the operator walks along it, and shakes the cup near the ground, by means of the stick. On heavy soils, an inch is quite deep enough to cover them; on light soils the depth may be one and a half inches or more. *The great secret of success,* is to have *very rich ground,* that has had *all the seeds of weeds completely worked out* by clean previous cultivation; and by destroying all weeds that may appear, when this has not been attended to, *before they are an inch high.* It is useless and very expensive to contend with large weeds. The crops should be harvested so early as to be just safe from all danger of injury by the freezing of the soil. A very slight crusting of the surface will not affect them; but an inch of frozen ground is very hurtful, particularly to ruta bagas.

A novice in raising crops of the ruta baga, may be known by his leaving the plants so closely together that their size is not half developed. The drills should be two feet or more asunder, and the roots not nearer than ten inches in the drill; if the soil is very rich, not nearer than fifteen inches. Carrots may be more than twice as near together.

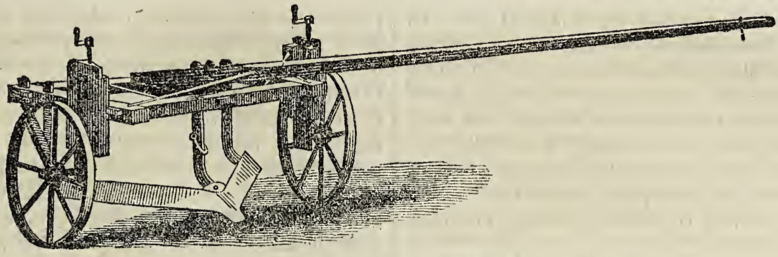
Value of Manure from Cattle.

Messrs. Eds.—What is the estimated value of manure, liquid and solid, dropped by a cow during the ordinary period of stabling? Also, what proportion of the value thereof may be safely reckoned as lost when the manure is thrown out into the barn-yard and exposed to the weather. A Subscriber. *Tarrytown, N. Y. July* 24, 1853.

The liquid portions of the manure from cattle are greater in bulk, and richer in quality, than the same from horses. The real money value of such manure must of course vary greatly with circumstances, such as the price of the crop raised, and the manner of applying the manure. For example, a ton of manure converted into strawberries, selling at four dollars per bushel, would return more money than a ton converted into corn at fifty cents, or ruta bagas at ten cents per bushel. Again—manure carelessly applied and badly mixed with the soil, will not yield one-third the return afforded from finely pulverised and thoroughly intermixed materials. Still further—the quantity and richness of manure is much controlled by the age, nature, size, condition, treatment and food of the animal which yields it.

In Flanders, where manures are well applied, and animals well fed, the urine of a single cow is reckoned at an average of $10 per annum—the solid parts are estimated at one-half to three-fourths of this sum. Taking the usual price of guano, $50 per ton, as the standard, the manure from a single cow, saved in the best manner, would be worth about $20. This is, however, higher than manure is usually sold, and by the common management more than half is lost.

No accurate estimate can, however, be made of the loss, when it is thrown into the barn-yard, and exposed to the weather, without knowing other particulars. As most farmers manage, by providing straw enough to absorb about one-fourth of the urine, from one-half to two-thirds are lost; a larger quantity of straw, in connection with leaves, peat, and an occasional layer of turf, the latter being the most valuable of all as an absorbent, would save nearly the whole, even if exposed to the weather.



BOUGHTON'S THISTLE DIGGER AND SUBSOIL CULTIVATOR.

Boughton's Cultivator and Thistle-Digger.

This implement, represented above, is of recent invention, and so far as we know, has been introduced as yet only to a limited extent, in western New York. Its efficiency as we have witnessed, and the favor with which it has been received, have induced us to give the above cut, from which its mode of operation may be easily understood. The cutting part consists simply of a sharp cast-iron blade in the form of a wedge, and when fitted for operation the blade is lowered by means of the screws over the wheels, (shown in the figure) so that it may run a few inches below the surface of the soil. It cuts, at each passing, a strip of soil four feet wide, three horses being usually required for its draught. Five acres may be easily worked with it in a day. There is no difficulty whatever, in using it on moderately mellow ground, or on any land that has been once plowed the same season.

It operates in two ways—by pulverizing the soil, which it will do at any required depth by turning the screws; and by cutting off completely all thistles, grass, and other weeds, with which the land may be infested. On stony ground, where the stones are not too large for a plow to move, it operates with great effect, cutting off and killing all herbage which in such soils is apt to escape the plow and harrow. As a destroyer of Canada thistles, nothing is equal to it—the thickest patch may be completely exterminated in a single season, and for this purpose it is greatly superior to the plow, which is not only much slower, but does not always accomplish the object on light and gravelly soils. Since the practice of plowing but once for wheat, and using the two-horse wheel-cultivator, has come so extensively into use, it is likely to prove of great value in the preparation of the soil, and it is already highly esteemed for this purpose, more particularly by those who have used the wheel-cultivator. It is made by E. Boughton, of Pittsford, N. Y. The price is $30.

◆

Cost of Labor.—It is estimated that in consequence of the greater cheapness of agricultural labor in England, when compared to that in America, there is an aggregate difference against the American farmer, in favor of the English, equal to fifty million pounds, or two hundred and fifty million dollars, annually. Or, taking another view of the subject,—American farm laborers get annually for their work, two hundred and fifty million dollars more than they would get for the same amount of labor in England—a large aggregate sum to be put into poor men's pockets.

Farming in Western Pennsylvania.

Messrs. Editors—Believing that good results may follow from farmers becoming acquainted with the modes and results of farming in various sections, I propose giving a synopsis of the state of agriculture in the southwestern section of this state. We compliment ourselves with the belief that in no section of the Union is farming prosecuted with more skill and success than in this region, with the saving clause, that it might be greatly improved. Our soil is various, though the clay and limestone so greatly preponderate that it may be called a limestone clay—of the tertiary formation, the stratification rocks and layers of earth perfectly horizontal. The face of the country is rolling, and the hillsides slope so gradually that nearly the entire surface is capable of cultivation. In consequence of the tenacious nature of the soil, it is but little liable to be washed off by the rains unless under very peculiar circumstances; consequently the sides and tops of the hills are quite as rich and productive as the bottoms or intervals, and the manures, animal and mineral, are preserved for the benefit of crops instead of being absorbed by an open, hungry subsoil.

The rotation of crops is very nearly uniform, viz, the sod or grass land is unusually broken up during the winter, for corn, which is succeeded by oats, or as is most usual is cut off in time for wheat in the fall. Usually it is succeeded by a second crop of wheat in order to get the soil into good condition for grass seeds, timothy seed being sown in the fall and clover in the spring as early as possible. The period of keeping it in grass varies; many farmers believing that grass is more profitable in the final result than grain-growing, permit their fields to lie in grass as long as it yields a fair amount of herbage. In the other case, where only a very small amount of stock is kept, it lies in grass only one year in four, this quality of the soil being kept up by heavy applications of manure and lime. On the whole the mixed system is adopted, combining the raising and grazing of stock with grain-growing. In many sections a large amount of clover seed is grown for exportation; the first crop of clover being cut about the middle of June for hay, and the second for the seed, which usually is a very profitable crop, though varying very greatly in the yield. Although we have a large extent of bottom land, our farmers believe it more profitable to put it through the same rotation as their upland, depending for their winter provender upon corn fodder and the first products or crop of grass seeds. En passant, I bear testimony to the gratifying fact that, cæteris paribus, those farmers among us have been the most successful who have been the most liberal in their expenses in the improvement of their soil, and every day confirms me the more strongly in the belief that sound economy requires that this improvement should be carried to the highest point of which the soil is capable, in the way of manuring, liming, subsoiling, draining, &c.

Liming is practiced to a very great extent, and with uniform good results—most generally upon corn, though often on wheat. The amount per acre varies from fifty to 200 bushels. Although I have known it applied in a perfectly caustic state with the corn crop, I never knew of more than one instance where it was suspected of burning the crop—the result might be different when applied caustic to *growing* wheat. Some farmers prefer to let it become effete, either in the kiln or small piles in the field—in either case it produces astonishing effects upon corn, wheat, and grass, which effects are visible for many years—the first results being the production of remarkable crops of white clover where no seed had been sown. On this point I may say that caustic lime will, in four days, reabsorb nearly its full volume of carbonic acid gas when spread on the surface—and consequently loses its burning qualities. The operation of magnesian lime is very different, and must be treated with great care—and the presence of magnesia is very easily ascertained by chemical tests.

The species of wheat usually sown is the Mediterranean. This wheat has lost its dark color, and has become as fair as the old species of red wheats, and is universally manufactured into superfine flour, for experience has convinced us, that with very rare exceptions it is exempt from the attacks of the fall and spring weevil, and the new insect which has made its appearance the last two years, preying upon the grains in the milk state. This species almost uniformly escapes the rust. The few days of priority of ripening over other species, being the secret of two of the above exemptions.

Of improved stock, large quantities have been introduced. It is, I believe, the general impression that a strong cross of the Durham upon the better breeds of our native stock, is better than the pure blood—because this cross, while it preserves the early maturity and good fattening qualities of the Short-horns, imparts the greater vigor of constitution of the native, and adapts it to the rigors of our winters, which are so much more severe than those of their native country. In addition, the less attention we pay to our stock, as compared to the English, should cause us to select a somewhat hardier race. For my individual self, I desire no more fancy pure bloods, except for the above purpose.

Of our Saxon, Merino, and French sheep, every person is sufficiently acquainted. A buck of the latter breed sold lately for $500, and produced an amount of wool last spring which I will leave to some other person to communicate. In consequence of the depression in the wool market for some years, the amount of wool produced in this region has, I think been reduced to about one-fourth the amount of many former years—perhaps even less. Our farmers had become discouraged with having to sell their crops of fine wool at from thirty-three to fifty cents; but herein they were in error, for I hesitate not to say, after an extensive acquaintance with wool growing for many years, that no branch of farming is more remunerative and certain than the growth of fine wool at three pounds per fleece, and thirty-five to thirty-seven cents per pound. The profit from increase is a very important item, most generally overlooked. Respectfully yours. G. E. H. *Near Brownsville, Pa., July*, 1853.

Cheap Wells.

It must be admitted that the present mode of digging and finishing wells for the supply of water for farms and dwellings, is rather behind the modern progress of labor-saving machinery. The shovelling and picking, and the slow and laborious turnings of the windlass, day after day, as the depth is gradually increased under these tedious and heavy labors, should give way to something nearer the horse-power and steam-engine principle. Wells are needed by every farmer, and are as necessary as food and clothing, and an improvement in making them would benefit millions. We are not about to proprose any thing, but merely to suggest the subject to ingenious men; and in the mean time, by way of assisting such suggestion, we furnish a few of the interesting facts in relation to wells, stated at a late meeting of the Royal Agricultural Society of England.

In soils free from stone, and consisting of sand, clay, marl, or gravel, successful experiments had been recently made, at a very moderate cost, by the following mode. Instead of digging the common large well, to be walled with hard brick or stone, a hole was first made with an ordinary boring auger, or cylindric scoop, which brings up the soil to the surface. A cast iron cylinder, half an inch thick, five inches in internal diameter, and four feet in length, its lower end being brought to a sharp edge so as to penetrate the earth, is then driven down into the hole by means of a heavy mallet, or "beetle." To keep it steady, a collar of wood made by perforating a plank, is placed around it on the surface of the ground. The earth enclosed within it is again removed with the auger; and in order to obtain a further downward passage for the cylinder, a tool is used for the removal of the earth in the form of a circle beneath its cutting rim. It consists of a rod with a cross-handle like that of an auger, and at its lower end a claw at right angles to the rod, so that in turning the rod, this claw turns round and cuts the earth below the lower edge of the cylinder, which is then again beaten down with the mallet. Successive cylinders are placed one upon another, as they descend. In this way, a well of ordinary depth, or twenty feet deep, is commonly completed in a single day, the sides being incased with iron cylinders from top to bottom. A bed of gravel is then thrown into the bottom, and a metalic pump inserted. It was stated at the meeting above mentioned, that the expense of such wells, where a business was made of it, did not exceed eight to fifteen dollars for a depth of twenty feet, including pump with lead tube; the cost of the iron cylinders is not mentioned, but if they are five inches inner diameter and half an inch thick, calculation would show that they would weigh about 37 lbs. to the foot in length, and could not therefore be afforded in many places in this country at less than a dollar per foot, unless made smaller and thinner. It may be that in soft earth, and especially soft sand, earthen tubing like drain tile, with the addition of glazing, might be strong enough, and might be adopted to great advantage, especially as some of the speakers at the meeting stated that the use of iron had been found to impart a rusty appearance to clothes washed in the water. From the statements of other members, it appeared that some had found a serious inconvenience from corrosion in the use of iron pumps, while others had experienced no evil whatever, owing undoubtedly to the difference in the water in different localities, and in the substances held in solution. The same difference had been found in the corrosion of lead pipes, some water not affecting them at all, and others eating them away in a few years. We have known a similar difference in the effect of water in this country. But it may be laid down as a rule that should in no instance be departed from, that water from lead pipes should never be used for cooking or as drink, which remains any length of time stagnant in the pipe instead of merely passing through.

The preceding mode would be applicable to such localities as contain large subterranean strata of water in beds of gravel, from which it pours out freely. There are many such, well determined, in regions where stone would not impede the sinking of the tubes. In other places where it is important to excavate large reservoirs for holding slowly collecting waters, this mode would not be applicable.

Royal Ag. Society of England.

The Fifteenth Annual Exhibition of this Society was held at Gloucester, on the 13th, 14th, and 15th July, and was considered upon the whole eminently successful. A very heavy rain, which continued for twenty-four hours without intermission, very considerably reduced the number of visitors. The number present on the first day was about 3,000—on the second, 10,424—and on the last not less than 40,000.

The number of implements was unusually large and interesting—numbering 2,052 in all. Among these were no less than twelve reaping machines, which were all tried on a field of rye. Of these, six, including Bell's, two of Mc-Cormick's, and three of Hussey's, were selected for farther trial during harvest, under the direction of Mr. Pusey.

In the exhibition of stock, says the North British Agriculturist, "the number of cattle was 199; of horses, 97; of sheep, 292; of pigs, 149; total, 737. These numbers, taking into account the large and varied list of premiums, must be regarded as somewhat meagre. The admirers of a full exhibition have accounted for this paucity of number by the new rule of the Society against over feeding. This we subjoin, "All animals sent for exhibition which shall, in the opinion of the jury, be in an overfed condition, will be disqualified by a jury before inspection by the judges; and a placard be placed over the standing of every animal that shall be so disqualified, stating the reason of such disqualification." We consider this the most judicious and important rule ever introduced into a show-yard. It is notorious that many of the very best animals have been rendered useless for breeding by being overfed for our National Exhibitions. This rule, which many regard as extremely obnoxious, and which will possibly be attempted to be set aside, will, if steadily adhered to, lead to the abandonment of the practice of overfeeding."

Experiments with Poudrette.

Messrs. Editors—As all who till the soil are interested in the subject of manures, let me give you the partial result of some experiments tried during the few past years.

In the first place, I had a lawn of about an acre in extent, which had hitherto yielded only a light crop of grass, and which became quite dry and brown during mid-summer. As it was not convenient for me to break it up and seed down afresh, I determined last spring to try the value of some kind of top-dressing; and as sufficient barn-yard manure could not be had for this purpose, I resorted to the following expedients:

Dividing my grounds into several portions, I spread on the first part a light dressing of poudrette, (at the rate of about fifteen bushels to an acre)—on the second a more liberal dressing, with the addition of a compost made of a little barn manure mixed with rotted sods and other refuse; on the third a heavy coat of poudrette, (at the rate of thirty busdels to the acre,) with the addition of unleached ashes sufficient to cover the poudrette, and on the fourth a good dressing of ashes alone.

The grass throughout the whole lawn came up earlier, and grew more vigorously than it did last year. In the first part it was lightest, and most infested with weeds. The second and third gave a very good crop of hay, the difference between them being hardly perceptible. The fourth was a little better than the first. I ought to add that my soil is a clayey loam, inclining to become parched and cracked in summer.

So far as a judgment can be formed at this season of the year, and from a single experiment, I think there can be no doubt of the value of poudrette as a top-dressing for grass. On stiff, dry soils, a good compost from the barn-yard might be preferable, as that, by mechanical action, loosens the ground and protects the tender roots of the grass from the heats of the mid-summer sun. This region, (Oneida Co.,) is now, (July 25th,) suffering from a severe drouth, and yet my lawn looks much fresher than it did in the midst of a similar drouth last year.

I have tried poudrette also in my garden, on corn, beans, asparagus, pumpkins, squashes, grape-vines, &c. In the growth of corn, squashes, and beans, there is, thus far, a perceptible improvement. But of these and some other things, I can give you a more complete report next fall. G. *Clinton, July* 26, 1853.

The Common Long White Turnep.

Experiments showing the Profits of Thorough Culture.

Messrs. Editors—A late number of the Country Gentleman contains a notice of the premium root crops of this county, with the request that the successful competitors would report their respective modes of culture. I have since looked in vain for those reports. I regret this, because I believe that root culture is destined to effect a change in our agriculture so great as to deserve the name of revolution.

This may to some appear extravagant, but a little reflection will clear me from the charge of enthusiasm, since among the most advanced agriculturists such a revolution has already occurred. Throughout England, Scotland and Ireland, the root crop is the foundation of successful agriculture. It must become so here, when a rapidly increasing population shall make labor cheap, and create a far larger demand for food than our soil has ever yet produced. Allowing what has been proved by the most careful chemical analysis, that ten bushels of the poorest roots cultivated are fully equal to one of wheat or corn, and it follows that the same soil will produce two or three times as much animal sustenance in the form of roots as in grain. Our prospects may be influenced by future discoveries, but at present it appears quite probable that root culture will hereafter become the measure of our country's capacity for population. It is therefore important that successful experiments in this branch of agriculture should be reported, and through the press scattered broadcast over the community.

At the last exhibition of the Litchfield Agricultural Society, I had the honor of receiving, on root crops, three premiums, viz, on potatoes, ruta baga, and turneps. As the season during which the turnep crop is in this climate usually sown has arrived, it may perhaps prove useful to publish the mode and result of my experiment with this crop.

The ground selected was an old meadow, neglected for years—its surface slightly declining to the east. The origin of the soil was from the primary rocks, and its chemical composition such as naturally produces the oak, maple and ash forest trees.

The physical condition of the soil was such as is produced by neglect and bad culture. Its organic portion had been exhausted, having a subsoil cold, hard, and yellow, well supplied with pebbles and covered with a surface soil not more than two or three inches thick. It was retentive of moisture but free from standing water. Its product an annual crop ,of vile moss, and about half a ton of good hay per acre.

Its previous culture was a slight manuring, breaking up, and cultivating with potatoes the previous year. The result was the preparation of the soil for the turnep crop, and a small quantity of small potatoes.

Early in the succeeding spring the preparation for the turnep crop began in earnest. First the rocks were, if necessary, broken, and all stones of whatever size removed from the field. Next the land was well manured and plowed not less than twelve inches deep, and thoroughly harrowed. After two weeks it was again manured, and plowed half as deep as before, and harrowed. With intervals of a few days it was plowed and harrowed twice more, and a small quantity of manure harrowed into the surface. At this stage of preparation the soil lay in a soft, uniform bed, at least twelve inches deep. The change effected in its appearance was surprising. The yellow, cold, shallow and hard soil of the preceding year, had become of a rich, dark color, warm, deep and light. Through this bed furrows were drawn fifteen inches apart, into which were drilled a composition of the richest manures from the farm, with ashes, lime and gypsum. The furrows were then turned back over these drills with the plow, leaving the land in ridges, which were slightly raked off and nicely finished with the garden rake. Through the tops of these ridges and directly over the manure, a channel was made for the seed, by drawing along them the corner of a hoe with slight pressure. Into this channel the seeds were dropped by hand, half a dozen in a place, with intervals of eight inches. They were then covered by drawing the back of the rake over them, and the planting was done, the seed deposited with regular spaces of fifteen inches one way and eight the other, on rounded and slightly elevated ridges, planted in earth made rich for their germination, and having a bed of rich manure only an inch or two below them, into which the young rootlets, as soon as formed, might plunge and revel.

As soon as the plants were large enough, they were thinned out by the removal of all but the best plants from each place, and carefully hoed by hand, at intervals of a week, four times, when they became too large to work among longer without injury to the crop. There was scarcely a vacant space or small plant in the field. They were very uniform in size; the tops covered all the ground, and formed a crop unrivalled for beauty, except by the larger and darker green-leaved ruta baga.

The variety of turnep was the common long white. To show the facility with which turneps so cultivated may be gathered, I will add the fact that they were all pulled and laid carefully in rows, with the tops all one way, by two persons, at the rate of more than five bushels a minute.

They were planted about the middle of July, and harvested on the 13th of November, and measured by disinterested men, and the result announced in the accompanying certificate. The report was verified in the usual manner before the Executive Committee of the Agricultural Society, and received the first premium. It is thought to be the largest crop of this variety of turnep ever reported. The following is an approximation to the cost and value of the crop per acre:—

Removing rocks and stones, ...	$2 50
Manure 100 loads, $50—half charged to first crop...	25 00
First plowing,........	2 00

Second do. and harrowing,	2 00
Third do. do	2 00
Fourth do. do	2 00
Forming ridges,	0 50
Raking and planting,	2 50
Weeding and thinning,	4 00
First hoeing,	2 00
Second do	1 50
Third do	1 50
Fourth do	1 50
Harvesting,	8 00
Rent of land, $30 per acre,	1 80
One pound of seed,	0 75
The whole cost of the crop per acre was,	$59 55
The income was—a large quantity of tops.	$4 00
2,102 bushels of roots, at 12½ cents per bushel,	262 75
Whole value of the crop,	$266 75
Cost deducted,	$59 55
Profit per acre.	$207 20

The cost per bushel was a small fraction below three cents. JOHN T. ANDREW. *West Cornwall, Ct., July 23, 1853.*

We assisted in measuring the turnep crop raised by John T. Andrew, and also the land on which they grew, and certify that the crop yielded two thousand one hundred and two bushels and two-thirds per acre, harvested this day. FRANKLIN BEACH, *Nov. 13th,* 1852. CYRUS W. GRAY.

I hereby certify that the signers of the above certificate are men of truth and veracity. SILAS A. GRAY, *Justice of the Peace.*

I certify that John T. Andrew, Esq., is one of the magistrates of this town, a successful farmer, a man of liberal education, and of undoubted veracity. SILAS A. GRAY, *Justice of the Peace. Sharon, Ct.*

A Cheap Ice House.

The best and cheapest plan for constructing an Ice House, for family use on a farm, has frequently been described in the Cultivator and Country Gentleman; but people are so shy of experiment, that I presume few have tried it. The original description came, I believe, from MR. DOWNING. It was a wooden house, above ground, with a door in the side, and a framed roof, and ventilator. The roof was also made to project far over the sides, so as to form a sort of summer house, with rustic seats.

I constructed a house on this plan, last autumn, but so modified as to cost half the sum that Downing's plan would, as I did not care to make it ornamental. The filling of the sides, is also an important matter, and in this respect, the course I adopted is somewhat new.

I dug a hole in the ground under some trees, about one foot deep, for drainage. At each corner of the cavity, which was about ten feet square, I placed a rough post cut from the woods, and upon these posts nailed a siding about eight feet high on one side, and six feet upon the opposite side—the two remaining sides being bevelled to correspond. One foot from this box, I set four more posts at the corners, and covered the sides with boards as before. Cheap hemlock boards were used, of the common length of the lumber yard, ten and twelve feet, with little cutting. Here, then, I had one box outside of another box, and one foot of space between them, all around.

Now, how to fill the sides, was a question. Saw-dust, tan, or charcoal, I could not easily obtain, and I did not then know, what I have since learned, that shavings answer as good a purpose as either of the other substances, if not better. But even shavings were not to be had at less than $1 per load. Saw-dust, I am told, is highly objectionable, as it gets into a heat, decomposes, rots the timber, and will not keep ice well.

While I was trying to hunt up some filling, cold freezing weather came on, the ice was cut for the house and put in upon a layer of brush and straw, with straw at the sides and upon the top, and well packed. The top of the Ice House was then covered with loose boards, so lapped as to keep out the rain, but admitting some chance for moisture to pass off through various crevices. It was nearly two months before the filling was put in, and the ice still remained solid and firm. There were about sixteen tons of ice, I think, in the house, not more.

Having on hand a lot of coarse land lime, which I did not expect to use, I thought I would mix it with common sand, from a Jersey soil, and make a sort of mortar filling for the sides, and see what that would do, so I set one of the farm hands to work at the job. He made the mortar, and filled the sides in part of two days. The lime was poor, and the sand not very sharp or clean, and the mortar was not good—but it set tolerably well, and in a short time became perfectly dry, and has never seemed to absorb any moisture since. The filling is of course perfectly air tight, and being entirely dry, must form a good wall for an Ice House. The board casing still remains upon the outside, as I do not suppose the filling would stand without. We braced the sides while putting in the mortar, to keep the boards from springing. The ice kept them straight inside.

Now for the history of the ice. It kept well till the first of June, when I observed it was beginning to melt. I looked about for the cause, and observed that the workman had dug a drain at one side of the box, from the interior, and had left it open to the air, supposing that some such drainage would be necessary. This, I at once perceived, must serve as a sort of flue to carry air from the bottom of the house to the top, or the reverse, whichever way the current might happen to set, making a constant draught through the body of the house. The straw upon the top of the ice, and particularly at the sides, was, at this time, quite moist and rotting. I immediately closed the drain with sods and earth, as tightly as possible. In a few days afterwards, I found the interior of the Ice House dry and cool, and the ice free from moisture, and keeping admirably. We have now had our hottest weather probably, and the ice still keeps well—and if not used, would, I have no doubt, keep all summer. The whole cost of the house was about $20. It will last for many years. There is no door in the side of the house, and the roof is merely whole boards laid loosely on.

We get the ice out by raising the boards, and passing it through the roof in a basket. Plenty of ice is a great luxury in the country, and by such a contrivance as I have described, it is very cheaply obtained. We frequently make an impromptu ice cream for our visitors; and have also the satisfaction of dispensing several bushels of the frigid crystals to cool the parched tongues of our sick neighbors. The filling of lime and sand, made into a coarse mortar, can be obtained more readily than any other in the country, and I think it as good as anything else, if not better. Two air-tight boxes, made of plank, with a space of one foot between them, would, I think, answer equally well without any filling. J. S. HOUGHTON, M. D. *Philadelphia.*

Salting Hay and Stock.

Messrs. Editors—In the last number of the Country Gentleman, I perceive that two of your subscribers have given their opinion upon salting hay; and as the subject is of some importance to farmers, will you permit a third to offer his views. I was formerly in the habit of salting most of my hay as it was packed into the mow, but experience, the best of all teachers, has learnt me better.

The method adopted for the last two years by your West Pawlet (Vt.) subscriber, of providing boxes of salt constantly for the use of his stock, is by far the most judicious; only I think he errs in supposing that much less salt is required in winter than in summer. Left to their own instincts and inclinations, horses and cattle will consume about the same in one season as the other; but sheep will consume considerably more in the winter season. This may be accounted for by the fact that dry forage is more difficult of digestion than green; and that salt helps to keep up a healthy digestion, particularly when the animal has free access to pure running water, there can be no doubt.

Since I have practiced keeping my stock supplied with salt, I find that my flocks of sheep (each 100 in number) will take up to from five to six quarts weekly in the winter season, and from three to four quarts in summer.

Before I commenced this practice, my sheep were very liable, in winter, to a disease called the stretches; which is nothing more or less than a stoppage in the alimentary canal, by a dry or hardened condition of the food, sometimes in severe cases causing a structural alteration in the small intestines, (not unlike the bilious cholic in the human system,) causing the animal to writhe with pain, frequently lay down and get up, and stand in a stretching position, true to the instinct of nature, as if conscious of an effort to draw the intestines back into their natural condition. This is a formidable disease, and often proves fatal, and let me here say, that the best remedy is a half gill of castor oil given in the first stages of the disease; but the prevention is better than the cure. I am now seldom annoyed by this disease, not having lost a single sheep by it since I have adopted the plan of having my salt boxes at all times supplied with St. Ubes or Turk's Island salt, and pure aqueduct water running in each yard. But it will not do to suffer your boxes to remain empty three or four weeks at a time, and then replenish them; your sheep will take more into their stomachs than they can dissolve, or their systems can manage, and they will die under its influence; such is their fondness for this valuable and indispensable ingredient, which is a certain and sure indication that the health and well being of the animal requires it in minute particles at all times and in all seasons.

The advocate for salting hay may fancy that these remarks tend to strengthen his opinion, for hay *evenly* salted will afford sufficient for the system in his view, to promote digestion and vigorous health, when fed out two or three times daily. In reply to this, I will again call to my aid *experience,* that never failing instructor. It is impossible to salt hay *precisely even, or just as much as the animal requires and no more;* some parts will get too much and some too little; and in keeping sheep constantly on salted hay, they become weary of it, or cloyed as the saying is; they lose their relish for it, and a waste of fodder is the consequence, though by no means the worst consequence attending it, for it frequently produces (particularly among lambs) the scours, a disease (similar to the dysentery, in the human system,) very difficult to manage and often proving fatal. When feeding out salted hay, both to sheep and cattle, I have noticed this disinclination to eat and relish their feed, and this cathartic tendency when it did not run into the dysentery form, and whenever a part of the mow that was not salted came along, they would eat with great avidity and overload the system, producing a swelling or bloat; and I very much doubt about its being the most proper and natural way to feed salt to our domestic animals in winter to mix it with their hay, even if a process could be arrived at that would give the animal just what its system required and no more. It is evidently more desirable, more in accordance with the instinct of nature, to go to his salt manger whenever he pleases, partake of as much or as little as he pleases; and having watched and learned the habits of our domestic animals, I believe it to be economy to practice accordingly, and that the best results will be attained thereby; while the loose and careless observer of these things, perhaps deeming them too trifling and minute for his attention, the neglector of his farm stock, will be continually losing by disease, by leanness of flesh, and by a diminutive weight in his annual clip of fleeces.

My annual hay crop ranges from 75 to 125 tons; usual average about 100 tons; to which I formerly applied considerable salt in packing away in mows. I now apply none, unless forced to it by bad hay weather, and used as a preventive against damaging in the mow. While I annually feed not less than 25 bushels to my stock, not three bushels finds its way into the hay mow. J. W. Colburn. *Springfield, Vt., August* 1, 1853.

Deep Plowing.

Messrs. Editors—I observe that you are turning the attention of your readers to deep culture, and to encourage this system I will give you my experience briefly.

Three years ago this spring I purchased a worn-out farm, as it was termed, and in the autumn plowed twenty-four acres of meadow with a Michigan sub-soil plow, from ten to twelve inches deep—sowed eighteen acres with spring wheat, and stocked. The balance was planted to corn, well manured with yard and special manures. A strip a rod in width, by the side of this corn, was plowed with an ordinary plow, and common depth—both treated alike; the latter yielded from forty to fifty bushels per acre—the former double those amounts. The meadow produced this season, second mowing, two and half tons and upwards per acre, of good timothy hay. This land was tolerably manured, and well drained. I took another old meadow of *seven* *acres* two years since, after cutting *less than a ton* per acre—plowed as before, rolled thoroughly, drained completely, and as I could not spare manures for it, sowed winter wheat and stocked without manures, and a few days since Ketchum's Mowing Machine cut from that seven acres, inside of three hours time, twenty large loads of hay, over two and a half tons per acre, being the first crop.

With this plow no summer fallow is necessary—the plow may follow the rake—and hereafter I shall raise no crops on meadows, but manure and stock forthwith. Am intending to turn about forty acres next season, and to follow the Michigan plow with a subsoil plow, to cultivate fourteen inches in depth, and have no doubt that my neighbors who are complaining of the drouth, will see that my farm is not "altogether spoiled" by deep plowing, and that three tons per acre will be produced, drouth or no drouth. Respectfully yours, H. E. Foote, Sec. St. Lawrence Ag. Society. *Ogdensburgh, St. Lawrence Co., Aug.* 8, 1853.

P. S.—You will please to announce that the Fair of this county will be held at Canton, on the 15th and 16th of September.

I hand you by this mail, also, one of our posters, that you may see what we are doing in this county to promote agriculture.

Foreign Correspondence.

We announced some time since, that we had made an arrangement with the Rev. J. A. Nash of Amherst, (Mass.,) author of the "Progressive Farmer," to write a series of letters on the Agriculture of Great Britain, during a tour he was to make expressly for the purpose of examining into the agriculture of that country, preparatory to entering upon the duties of Instructor in Agriculture in Amherst College, a station to which he was appointed about a year since. Mr. Nash sailed for England in May last, and we have been disappointed, as we doubt not our readers have been, in not hearing from him before this. But the following private note, which we trust he will excuse us for giving to the public, will explain the cause of the delay, as well as afford them an assurance that they may expect, ere long, to hear the carefully matured views which he has formed of European Agriculture as compared with our own.

London, July 16, 1853.

L. Tucker, Esq.—I owe you an apology for not having forwarded you anything for the Country Gentleman. I have been through Ireland, and have been more or less into a majority of the English counties. My present purpose is, to spend a few days in Scotland—then pass through Holland, Belgium and a corner of France, to spend a short time in Paris, and then to return to London, not to jaunt any more, except for short trips into the counties near this place, but to settle down, and mature some views, which may be worthy of the conditions on which I am to write.

English farmers, from the highest to the lowest, are wonderfully hospitable. Their doors and hearts are wide open. I have become intensely interested in their agriculture. Still, agriculture here is a very different thing from what it is among us. The climate differs, more even than I had supposed. The capabilities of the soil are different, and the wants of the community different. At the great Exhibition of the Royal Ag. Society at Gloucester, on Wednesday, Thursday, and Friday of this week, I saw very much to excite admiration, but far less which I am ready to commend to the imitation of Americans. Indeed I do not feel prepared to speak, till I have seen more and thought longer. Invitations are now before me for looking into usages in various parts of Scotland, and on the way thither, relating to almost every branch of agriculture; and I wish to suspend all remarks till I shall have made further investigations.

I could now tell your readers that there are many usuges in this country which American farmers should imitate, and more which they should avoid, if they would escape ruin; but this would not amount to much—would hardly be worth the space in so good a paper as yours—and I want more time, in order to make up my opinions deliberately and discriminately. You may rely upon me to do my best to fulfill my engagement with you satisfactorily ere long, but it must be at a later period than was expected.

Wonders are being done here by reducing all the manures of a farm to the liquid state. I have seen this practice on the farm of Mr. Littledale, at Liverpool, and am to see it on the farm of Mr. Mechi of Essex, on Wednesday next. It is a matter that requires careful examination, and I have not yet had opportunity to examine it sufficiently. It is so with other important matters. I must therefore beg you to be patient with me a few days longer. Of whatever sins and follies I may be guilty, I hope not to write what good practical farmers would ridicule on the one hand, nor what might mislead them on the other. With esteem and respect, I am yours, J. A. Nash.

Glass Water Pipes.

A correspondent in Western Pennsylvania inquires if *glass pipes* could be made to take the place of lead ones, in conveying water under ground, for culinary purposes. Cannot some of our glass manufacturers answer this, giving the cost, if made of tough and cheap glass.

Where the descent is nearly uniform, so as to receive no pressure from a head of water, *glazed* earthen pipes like those used in tile-draining, would be cheap and safe. The joints might be united with hydraulic cement. Water pipes have been wholly made of hydraulic cement (or water lime) very successfully; but we would propose to procure the smallest size tubular tile used in draining, and surround it with a bed of water-lime mortar. A strong, durable and safe pipe would thus be made, without requiring any skill whatever in construction.

In the case mentioned by our correspondent, the spring is five feet higher than the place to be supplied, 50 rods distant, and a hill of ten feet rises between. It is not probable that even a lead tube could be made to work as a syphon at that distance; and even if so, it would be attended with constant interruptions, especially from the accumulation of air at the highest part. It would therefore be cheapest to cut through the hill.

The Dairy.

Cheese Making from a Small Dairy.

We have received requests from several of our lady correspondents, to write a short article on cheese making, especially in reference to that large class of farmers who keep but few cows. It always gives us pleasure to comply with the requests of the ladies, especially of those who are good housekeepers—know how to milk a cow, make good butter and cheese, and cultivate a small flower-garden.

First rate cheese can be made from a few cows, but it is attended with more labor in proportion to the amount made, than in a large dairy, inasmuch as the curd has to be made every morning and placed aside till you have sufficient to make a good-sized cheese. The milk is placed in a tub, and warmed to the proper temperature, (95 deg. Fahr., or about as warm as when taken from the cow) by adding a portion of heated milk. The rennet is then added, the milk well stirred, and afterwards let alone till the curd is well come. The time this occupies varies from fifteen minutes to two hours, according to the amount of rennet, the temperature, &c.—the hotter it is put together, and the more rennet is added, the quicker will the cheese come. As a general thing, the longer it is in coming, the tenderer and sweeter will be the curd. If it comes too quickly, it is owing to an excess of lactic acid being formed from the sugar of milk; so that the curd has that hard, tough, white appearance, that is the case when the curd is precipitated by vinegar, or any other acid; but, if there is a very slow formation of lactic acid, the curd is gradually precipitated in flocks, is less dense, and very sweet and tender. It is then broken up quite fine, either by hand or a curd-breaker made for the purpose, which cuts it into very small pieces. After this, it is allowed to stand and settle. The whey is then drawn off and passed through a sieve, to remove any curd there may be in it. The curd is then placed in a strong cloth, and well pressed, to remove the whey. It is then placed in a cold place, and the operation repeated daily—or every other day, if the milk will keep sweet, as it will in the fall—till there is curd enough to make a cheese of the desired size. When the right quantity is obtained, the curd is all broken up very fine, salted and well mixed. In putting the curd in the vat to be pressed, a cloth sufficiently large to cover the whole cheese is placed in the vat, and into this cloth the curd is put. When the curd has filled the vat, a "fillet" (usually made of sheet tin, and from three to six inches wide, and sufficiently long to lap over four or five inches when placed round the cheese) is placed inside the vat for an inch or so, and the cloth drawn up straight, so that when being pressed the fillet will not cut it. The whole of the curd is then put in, the cloth turned over the top of it, a smooth board placed over this and then it is ready to press. After it has been pressed for some time, it is taken from under, and punctured all over with a skewer, either of wood or iron. Place it in the press again, until it has become sufficiently consolidated to take out of the vat without falling to pieces. It must then be turned, or inverted in the vat, and a clean cloth put round it. Place it again under the press, occasionally turning it and putting round it fresh cloths, till the cheese when pressed does not wet them. It is then all right, and should be kept in the dairy, or other cool, damp place, for a few days, placing a little salt round it, when it may be taken to an upper room, where it will require turning very frequently, or the side next the floor will mould. Let the room be dark and well ventilated.—*Western Agriculturist.*

Experiments in Making Butter.

A board of commissioners has been appointed by the Belgian Government, to examine various agricultural implements. The commissioners made also experiments with Lavoisy's churn, with cream of one and the same quality, temperature, and under like circumstances.

In one experiment, a small quantity of cream was much churned; in another the cream was slightly churned; and in a third experiment, a large quantity of cream was much worked by the paddle of the above named churn; and they found that much churning, at fifty-four degrees Fahrenheit, had no influence upon the quality of butter; that the slow or rapid formation of butter, or, in other words, the longer or shorter duration of churning, had no influence upon an increase or decrease of the quantity of butter in a given quantity of cream.—*Ag. Praesician, Oct.*, 1852.

Rural & Domestic Economy.

Drying Vegetables for Long Keeping.

At a late meeting of the New-York Farmers' Club, specimens of various vegetables were presented, and soup made from them exhibited, which had been dried by a secret process, so that they could be kept for an indefinite length of time, with a perfect retention of flavor. They are cut into thin slices before subjected to the drying process, but this is all the information on this point that we are favored with. The process originated in France, where for some years it has been in successful practice. It has been tried with satisfactory results on all common vegetables, except potatoes and beets. The New-York Agricultor says: "We tasted (imported) cabbage, and found it as good as new—to our taste." Cabbage loses about fifteen parts of water out of sixteen, by the operation,—carrots about nine parts out of ten. The cost of preparation is said to be about two cents for each pound of the dried article. They have already remained uninjured during a four years sea voyage. Vegetables dried in this way, we should think, would form an excellent accompaniment for meat biscuit.

White Sheep Skins for Door Mats.

Take two long-wooled sheep skins, and make up a strong lather of soap; the sign of proper strength is when the lather feels slippery between the fingers. When the lather is cold wash the skins carefully in it, squeezing them between the hands so as to take all the dirt out of the wool. When this is accomplished, lift out the skins and wash them in cold water until all the soap is extracted. Have a vessel of clean cold water ready, to which some alum and salt (about half a pound) which have been dissolved in a small quantity of hot water, are added, and the skins left to steep all night. They are taken out in the morning and hung over a pole to dry. When all the alum water has dripped off they are spread out on a board to dry, and carefully stretched with the hand from time to time. Before they are thoroughly dry, a composition of two table spoonfuls of alum, and the same of saltpetre, are ground to powder, in a mortar or otherwise, and sprinkled carefully on the flesh side of each skin. They are then placed the one on top of the other, leaving the wool outside, and hung upon a rack of salts, in a barn, shed or dry, airy place, for about three days, or until they are dry—they should be turned every day. After this they are taken down and the flesh side scraped with a blunt knife, and each skin trimmed for a mat. The flesh side may then be rubbed over with pipe clay, beat with a switch, and will then be found supple, of a beautiful white color, and fit for a door mat for a mechanic or prince.—*Sci. Am.*

Valuable Recipes.

[SELECTED FROM VARIOUS SOURCES.]

Cherry Marmalade.—Remove the stones and stalks from the cherries, and rub the cherries through a sieve, add to this result a little currant juice, say half a pint to every three pounds of cherry; put the whole over the fire, stirring into it three-quarters of a pound of fine white sugar to every pound of the fruit, and boil it until it becomes a thick jelly; pour it into jars or moulds, and when it is cold, spread on the top of each jelly a paper dipped in brandy, cover each jar or mould tightly, and keep it in a cool and dry place until it is wanted.

Currant Marmalade or Jam.—This is made in the same manner as cherry marmalade, using currants alone and adding to every pound of currant pulp and juice, one pound of fine white sugar.

Raspberry Marmalade or Jam.—Pass the raspberries through a fine sieve to extract their seeds, add to them their weight in fine white sugar, and boil them, and stir them over the fire until you can just see the bottom of the stew-pan; treat it as Quince marmalade.

Currant and Raspberry Jelly.—Pick over a quart of red currants, a quart of white currants, and a quart of raspberries; put the whole over the fire, stir them, and boil them about ten minutes, then rub them through a sieve, strain the liquor while hot through a jelly-bag, add a pound of fine white sugar to every pint of the liquor, boil and treat it as directed for apple jelly.

Pineapple Jelly.—Pare and grate the pineapple, and put into the preserving-pan with one pound of fine white sugar to every pound of fruit; stir it and boil it until well mixed, and thickens sufficiently, then strain it, pour it into jars, and when it has become cool, cover the jellies with papers wet in brandy, cover the jars tighfly, and treat them as apple jelly.

Black Currant Wine.—Strain the currants, which should be perfectly ripe. To each quart of juice put a couple of quarts of water and three pounds of sugar; stir the whole well together, and let stand 24 hours without stirring; skim and set in a cool place to ferment slowly. Let it remain three or four days; if at the end of that time it has ceased fermenting, add one quart of French brandy to every fifteen gallons of the liquor, and close the cask tight. Bottle when clear; it will be fit for use in six months, and improve by age.

Black currant wine is excellent in cases of sickness, such as for diseases of the bowels.

Gooseberry Wine.—Bruise the berries which must be green, put them in a closely covered jar and set the jar into a pot filled with boiling water; keep the water boiling around the jar, till the gooseberries are soft, then take them out, mash them with a spoon and put them into a jelly bag to drain; when all the juice is squeezed out, measure it, and to a pint of juice allow a pint of sugar, boil twenty minutes, skim well.

Blackberry Wine.

It may not be known to many of your subscribers that they possess in the blackberry, grown so unwillingly by them in their fields, the means at once of making an excellent wine and valuable medicine for home use. To make a wine equal in value to Port, take ripe blackberries and press them, let the juice stand thirty-six hours to ferment, skim off whatever rises to the top, then to every gallon of the juice, add a quart of water and three pounds of sugar, (brown sugar will do,) let this stand in open vessels for twenty-four hours, skim and strain it, then barrel it until March, when it should be carefully racked off and bottled.

Blackberry cordial is made by adding one pound of white sugar to three of ripe blackberries, allowing them to stand for twelve hours, then pressing out the juice, straining it, adding one-third part of spirit, and putting a teaspoonful of finely powdered alspice in every quart of the cordial—it is at once fit for use.

This wine and cordial are very valuable medicines in the treatment of weakness of the stomach and bowels, and are especially valuable in the summer complaints of children.

As this is the season of such disorders, and as the blackberry will soon be ripe, I have thought it necessary to make known these recipes.—*Southern Planter.*

ANOTHER METHOD.—A lady friend, of Atlanta, gives us the following simple and easy method of making Blackberry Wine and Cordial. We have tried the wine made after this recipe, and can recommend it as most excellent:

Blackberry Wine.—To three quarts of blackberry juice, add 1 quart of water and 3½ pounds of sugar, (white or brown.) Put in an open jar, and let it stand two or three days to work; then bottle and set away in a cool place for a year before using.

Blackberry Cordial.—Take any convenient quantity of blackberries, and stew in a preserving kettle for half an hour; then strain and boil again for half an hour, adding one pound of sugar to each quart of juice, using spices to the taste. When cool, add one gill or more of the genuine Cogniac brandy to each quart of juice. Then bottle and cork tight.—*Southern Cult.*

Drinks for Harvest.

There is nothing which creates thirst more than laboring in the sun—and such being the case, it is the duty of the master to have a cool and refreshing drink supplied at least once in each hour to his hands in the field. A hand would be well occupied, whose time was devoted to this object, and it would be well to have a small hand cart fitted up with a five gallon keg or half barrel, in which should be a drink comprised in the proportion of *five gallons of water, half a gallon of molasses and one quarter of a pound of ginger.* The whole should be well stirred together, and served out hourly. This drink we have frequently recommended, because we know it to be invigorating, refreshing and safe, no matter how cool the water may be. The cooler the water, the more grateful will it be to the palate—the more refreshing to the system—the surer of giving tone and strength to the harvester.—*American Far.*

Cure for Erysipelas.

The editor of the Salem Observer gives a public cure for this distressing disorder, from which he has been a great sufferer. He says, "a simple poultice made of cranberries, pounded fine and applied in a raw state, has proved in my case, and a number also in this vicinity, a certain remedy." In this case the poultice was applied on going to bed, and the next morning, to his surprise, he found the inflammation nearly gone; and in two days he was as well as ever.

A New Mixture used for Washing Cloths.

In Berlin, Prussia, the washerwomen use a mixture of 2 ounces of turpentine and a quarter of an ounce of spirits of sal ammoniac, well mixed together. The mixture is put into a bucket of warm water, in which half a pound of soap has been dissolved. Into this mixture the dirty clothes are immersed during the night, and the next day washed.

The most dirty cloth is perfectly freed of all dirt, and after two rinsings in fresh water, the cloth has not the least smell of turpentine. The cloth does not require so much rubbing, and fine linen is much longer preserved by it.

◆

A SECRET FOR A FARMER'S WIFE.—While the milking of your cows is going on, let your pans be placed in a kettle of boiling water. Turn the milk into one of the pans taken from the kettle, and cover the same with another of the hot pans, and proceed in the same manner with the whole mess of milk, and you will find that you have double the quantity of sweet and delicious butter. Try this, dairy women, and write us the results will you?—*Extract.*

Horticultural Department.

The New Ohio Strawberries.

Great interest has been felt as to the character and value which a fair trial should develop for these new sorts, in any other localities than Cincinnati, the place of their origin. It appears that they have sustained fully at Philadelphia their western reputation; while at Boston, according to Hovey's Magazine, they have proved almost a total failure. Some persons, no doubt, will be ready to make great allowance for the decisions in the latter instance, on account of previous prejudice in favor of those of Boston origin, yet this cannot be the sole reason of the unfavorable verdict. In Western New-York, McAvoy's Superior, which stands at the head, has proved an exceedingly productive, very large and high flavored berry, better in quality than Hovey's Seedling, but not equal to Swainstone and Burr's New Pine. We should think it too soft for extensive marketing. It may afford some interest to our readers to give, side by side, the characters of these four seedlings, as first given by the Cincinnati committee, and as now given by C. M. Hovey at Boston, and by the Pennsylvania Horticultural Society at Philadelphia, where the climate is not unlike that of Cincinnati.

McAvoy's No. 1.—"Pistillate, large, prolific, bright scarlet, not high flavored, but the handsomest dish on exhibition"—*Cin. Com.* "Does not set freely, even with a good staminate variety beside it; only a moderate bearer of fair size, color too dingy, and watery nature of the fruit renders it almost useless as a market berry; flavor rather insipid"—*Hovey.* "Large, roundish, deep scarlet, seed light crimson, indentations rather deep, intervals not ridged, flesh whitish, partly stained with red; flavor agreeable, quality 'good,' perhaps 'very good;' an abundant bearer."—*Phil. Com.*

Schneike's Pistillate.—"Large, medium quality"—*Cin. Com.* "One of the sourest strawberries we ever ate, and not only sour but bitter, and disagreeably flavored; color pale scarlet, and berries, even before ripe, look as if they had been picked and begun to decay; we consider it quite worthless."—*Hovey.*

Longworth's Prolific.—"The largest and most prolific hermaphrodite strawberry known to the committee, and equally prolific with any other variety. The plant is more hardy than Hovey's, and recommended for general cultivation, after four years' trial"—*Cin. Com.* "A very good berry, but only of fair size and medium quality, being rather acid. The color is dull, and the general appearance of the berry inferior"—*Hovey* "Very large, roundish ovate, brilliant crimson, seed of the same color, sometimes yellowish, set in rather deep indentations with rounded intervals; flesh red, flavor fine, quality 'very good;' a variety of great excellence, perfect in its sexual organization, and remarkably productive, a rare circumstance with staminate varieties of large size"—*Phil. Com.*

McAvoy's Superior.—"Pistillate, very prolific, large, dark colored, high flavored and luscious; a hardy plant; the specimens exhibited superior to Hovey's Seedling or any other strawberry that came under the examination of the committee, and entitled to the premium of $100, offered by the Society in 1847"—*Cin. Com.* "Very little different from No. 1. The berry is only of fair size, and of a very dark, dingy color, like the Hautboy,* with yellowish seeds; flesh thin and watery, and flavor only of medium quality. It has the same fault as No. 1, does not set and fill up well. Though the best flavored of the four, it is far inferior to many of the older varieties"—*Hovey.* "Mr. Cope's specimens were of great size and beauty, some of them measuring *five and a half inches in circumference.* Fruit very large, roundish ovate, occasionally slightly necked, deep brilliant crimson, seed crimson, sometimes yellow, set in indentations not deep, except in the largest specimens, when the intervals are also somewhat ridged; flesh red, flavor exquisitely fine, quality 'best'"—*Phil. Com.*

It is interesting thus to compare results in these three distant cities, and although some allowance will be made for the unfavorable character of the report from Boston, we are satisfied that these sorts, or most of them do better further south than at the latitude of Boston and Rochester; although, as we have already stated, McAvoy's Superior has proved a fruit of great excellence and value in the neighborhood of the last named city.

◆

Amateur and Window Gardening.

Strawberries.—Few plots of ground attached to the dwelling, are so small as not to admit the growth of some fruit as well as flowers. Foremost among fruits for small spaces, is the strawberry, being a delicious fruit, and one that soon spoils if exposed after gathering; consequently those in the market can rarely be obtained so nice as from the garden. Besides this, a strawberry bed, if placed in the right part of the garden, is at no time unsightly, but while in flower and fruit, really beautiful. As this is a crop to stand two or three or more years without disturbing, extra care should be taken in preparing the soil. Now being a good time to set about making a fresh plantation, we give the following as a good method, and can assure all who may feel disposed to try it, that the little extra labor required in preparation, will be fully compensated by quantity and quality of fruit. Take out a trench two feet wide, two spits deep, the width of the ground, and place it at the other end for filling up at the last. Loosen up the bottom of the trench, and place a good coat of rotten dung, if two or three inches thick so much the better. Take off the top spit of the next, same width, and place on the dung; then another coat of dung. This may be somewhat lighter than the bottom coat, and then the bottom spit on the top off this; and so go on till the whole is completed. If the second spit should happen to be very poor, hungry soil, it will be best to keep the bad below;

---

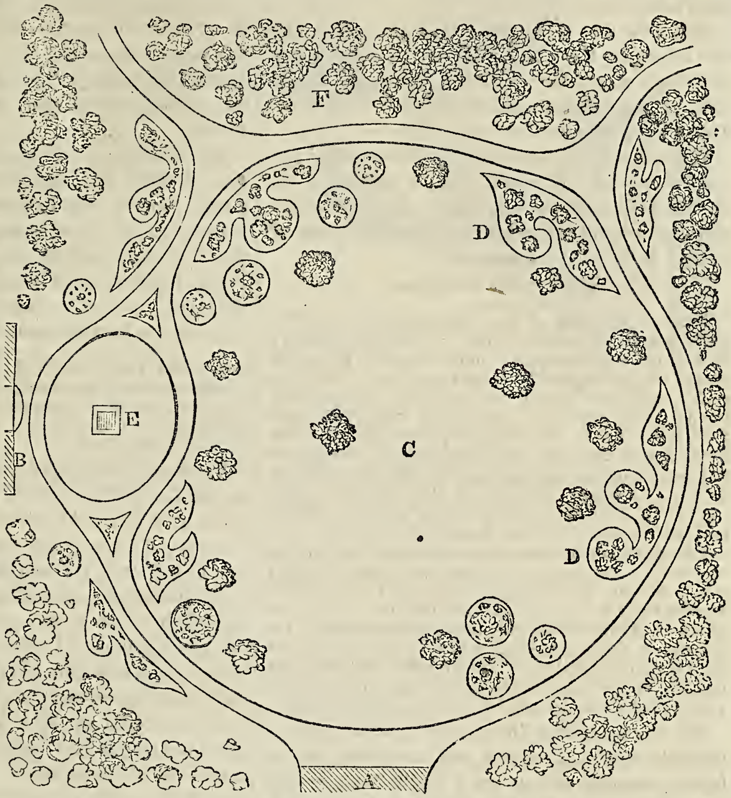
* *Hautbois,* (*high wood,* literally, from the tall fruit-stalks,) and not hautboy, a musical instrument.

Suburban Gardens and Grounds.

The accompanying plan of a flower garden and lawn combined, is from "Cottage Residences," by A. J. Downing, and is a fine specimen of landscape gardening. There is nothing of the stiff, awkward appearance which a geometrically arranged garden has, and such plans are more easily adapted to particular locations than any other style.

The author says of it: "The modern taste of discarding any set flower garden, and instead of it, arranging the beds of choice perpetual-blooming plants in and around a small lawn, in graceful and harmonious forms, is by far the most satisfactory, in a majority of cases. It is especially so in all small places where the ornamental grounds are too limited to allow of separate scenes. In such cases the grouping of flowers round a lawn, having only one or two colors in a bed, heightens the beauty of the lawn itself, while the flowers are enjoyed, perhaps, more than in any other way."

In this plan, A is the dwelling house; B the conservatory; C the lawn; D flower beds; E vase, sun-dial, fountain, or rustic basket filled with flowers; F is a boundary belt of trees and shrubs, shutting out the portion of the ground not strictly ornamental. "In practice it is found that small circular beds about three feet in diameter, grouped in twos and threes, (like those on the left of D,) are more convenient and effective than irregular beds. Single specimens of trees, such as grow beautifully alone, should be introduced in the lawn, (C) to give it a picturesque character."



---

but by all means loosen and apply dung two spits deep, as the roots have a far greater chance of going down beyond the reach of drouth in this hot climate, than by ordinary digging.

After the first shower, put in strong healthy plants, 2 feet 6 inches between the rows, and 1 foot in the rows, keeping them watered till they have taken hold of the soil, and next season a fair crop of fruit may be expected, and the second year a heavy one. For small plantations it is best not to have too many sorts, but select some known and tried ones, such as *Large Early Scarlet*, *Hovey's Seedling* and *Burr's New Pine*. Keep the hoe among them constantly, as they are much benefitted by this, besides destroying the weeds.

The Raspberry is another useful fruit to grow in a limited space. As soon as the canes have done bearing cut them clean out, and all young ones to four or five for bearing next year. This allows the air to circulate among them, and ripens their wood better than when left till fall or spring.

Currants and Gooseberries are benefitted by clearing away any useless suckers and wood—in fact, as little should be grown as possible that is to be taken out in winter or spring, as by taking them out now, the sap thus uselessly expended if left to grow, will be concentrated in the wood for another season.

Mildew on the Grape, has again made its appearance. Sulphur, if applied in time, will stop it. It may be dusted on dry, or what is perhaps best and most convenient on large spaces, is to mix it in water. If kept stirred, it will be held in suspension in the water, and may be applied with the syringe or garden engine.

Where Tomatoes have been planted they should be constantly topped beyond the fruit, and if extra fine are required for exhibition, thin out all small ones.

All vegetables should be picked when ready, as a much greater succession is obtained than by allowing them to become too old.

Now is the time to increase Carnations, Picotees and Pinks, by layers and pipings; the latter require to be under glass; they should be done as soon as possible. Use a little leaf mold and sand to root them in. They repay all the trouble they require.

Seeds of any striking flowers, should be marked and saved separately. This is the way to improve them. It should be perfectly ripe before gathered, or the young plants will be feeble and more susceptible of injury. E. S.

Evergreen Hedges.

Messrs. Editors—I have learned that Arbor Vitæ makes a good ornamental hedge. Is it of rapid growth? In how many years would it form a hedge? How close should they be planted? What soil is best? Is spring or fall, and what month, preferable for transplanting them? Will not stock injure them after they have formed a hedge? They can be purchased of the size from one to two feet high, in Bangor, Maine, for $15 per thousand, but can they be shipped to Indiana without "seriously endangering their lives?" Also, can you tell me the probable cost of transportation of half that number from that point to this?

I forgot to ask in the proper place, whether there be any truth in the saying, that you must plant the same side to the sun, as they grew originally? This seems absurd, but I have heard several insist on it. If you, or others, through your valuable journal, can give me answers to these questions, and any other information on this point, it will be of advantage to some of your readers, and will certainly oblige one. C. Kemble. *Little Flat Rock, Decatur Co., Ind., July* 12, 1853.

The American Arbor Vitæ, (called erroneously, White Cedar in Western New-York and some other places) forms a beautiful *screen*, but is hardly strong enough to resist the assaults of cattle. It will, however, become so after many years, if allowed considerable freedom of growth, and is not sheared too closely. We have seen old trees by the road side that had been browsed by cattle, and rendered thick, stubby, and impassable. The hemlock makes a more beautiful screen than the arbor vitæ, but is still slenderer when young. The Norway Fir will soon form a strong hedge against farm animals. All these bear any amount of shearing.

The rapidity of growth depends very much on the soil and treatment. Well cultivated, on rich soil, which is best, two-feet plants will form a screen six feet high in four or five years, which will improve much by thickening for three or four year more, and more slowly afterwards. This plant will make shoots each year about two feet long; Norway Fir, three to four feet. The distance asunder, may be one and a half to two feet.

Spring is the best time for transplanting, just as the buds are swelling, but the precise time is not important. It is, however, very important that some earth should remain on the roots when they are removed, and that the roots be well mudded. They may be transplanted in autumn, set in rather thickly by the roots, and set out early in spring; but it would be better to take them up early and send them in spring. From Maine to Indiana would be a long journey, unless sent on railway by express without any attendant delay. It would be better to procure them nearer. Good plants, one to two feet high, hardened to open ground, are, if we mistake not, offered for sale by Dell & Collins, of Waterloo, N. Y., at about $25 per thousand. The cost of transportation may be determined by weighing a few trees, calculating the weight per 1,000, and adding one-half more for packing, and learning the price from forwarding agents.

It is no consequence whatever which side of *young* trees, or of any trees with leaf-covered trunks, is placed towards the sun—but is more necessary for old bare trees which have stood many years, and which sometimes loose their bark by scorching if the position is reversed, and the shaded side is placed directly towards the rays.

Strawberries and their Culture.

Messrs. Editors—Will you inform us which are the best kinds of strawberries to cultivate in hills, and have the old plants remain long without renewing? and where such may be had? P. Pratt. *Deep River, Ct., July*, 1853.

There are some varieties of the strawberry, as for example, Large Early Scarlet, Cincinnati Hudson, &c., which grow well and bear abundantly if allowed to run and cover the whole bed, although the fruit is larger and finer if they are kept well cultivated in hills or rows. Other sorts, as Boston Pine and Black Prince, need high culture in all cases, and to be kept in hills. Hovey's Seedling is best if so treated. Strawberry plants begin to decline in vigor and productiveness in two or three years, and must be renewed. This may be very easily done by allowing some of the runners to grow, and then pulling up the old plants. An acquaintance keeps his large bed of Hovey's Seedlings in the most luxuriant and productive condition, by yearly pulling out all the old roots. The self-renewing system, practiced by allowing the runners to cover the space between the rows every second or third year, and then spading under the old rows, and leaving the new plants, is a very good and cheap practice.

The best strawberries are Burr's New Pine and McAvoy's Superior, for large, very productive sorts, of high flavor, but too soft for marketing; Large Early Scarlet, best very early sort, prolific, and good both for market and home use; Cincinnati Hudson and Rival Hudson, later, scarcely equalled for marketing, but hardly first rate in flavor; Hovey's Seedling, mostly quite productive, and very large and showy, and therefore high-priced in market; and Boston Pine, an excellent sort, but requiring high culture in hills. All of these except the Scarlet and Boston Pine, are pistillates, and require a few plants of either of the two latter to grow near them to produce fertility of flowers, and yield a crop.

◆

Setting Trees too deep.—A cultivator finding some heart cherry trees which had been set out three or four years did not grow well, examined by removing the earth, and found they had been set nearly a foot deeper than they should have been.

The Birch as an Ornamental Tree.

The fragrant birch above him hung
Her tassels in the sky.—Bryant.

Messrs. Editors—Enclosed I send you a drawing of the leaf and blossom of the Black birch, a native of our forests, which has grown to be a favorite tree of mine.*

I frequently see an article in the columns of The Cultivator and The Horticulturist, enumerating various kinds of forest trees as suitable shades for the lawn or street, and the Birch not among the number. And I noticed especially an article in The Horticulturist for 1852, from the pen of the late lamented A. J. Downing, encouraging the planting of more of our native forest trees in preference to those of foreign production, that manifested a feeling in which I felt a strong sympathy; but those sympathetic feelings were not a little dampened when, in looking over the list I could not find my favorite tree among the number which that popular writer had named as being worthy to take the place of foreign trees; yet I find it had not entirely escaped his notice, for, in looking over "Downing's Landscape Gardening," I felt relieved of my mortification, those sympathies were heightened, and my affections were more closely entwined around the spirit of that departed man, when I read the following remarks on the Birch:

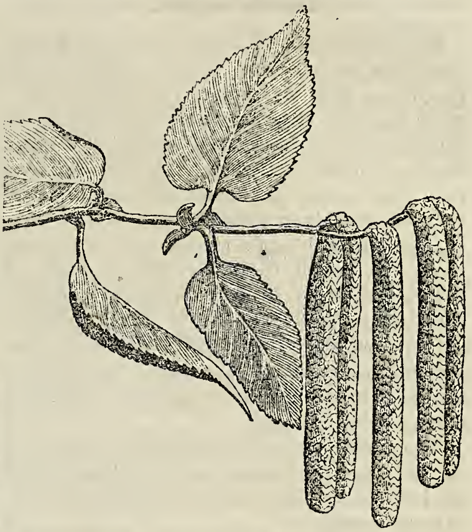
> With us it is a great favorite; and we regard it as a very elegant and beautiful tree, not less on account of the silvery white bark of several species, than from the extreme delicacy of the spray, and the pleasing lightness and airyness of the foliage. In all the species, the branches have a tendency to form those graceful curves, which contribute so much to the beauty of trees. * * *
>
> The American sorts, and particularly the Black Birch start into leaf very early in the spring, and their tender green is agreeable to the eye at that season; while the swelling buds, and young foliage of many kinds, give out a delicious though faint perfume. Even the blossoms, which hang like little brown tassels from the drooping branches, are interesting to the lover of nature.

And in a quotation from Bernard Barton, he says:

See the beautiful birch tree fling
Its shade on the grass beneath—
Its glossy leaf and its silvery stem;
Dost thou not love to look on them?"

Its smooth silvery bark, its straight and beautiful trunk dividing out into numerous stately branches, and subdividing into such a dense mass of fibrous boughs, forming that "extreme delicacy of spray," with its still thicker mass of glossy and beautiful leaves, through which the rays of the sun cannot penetrate. Its pendulous blossoms hanging like silver-tissued tassels, its cleanly habits, as well as neat appearance, together with its fragrance, render it to my taste one of the most inviting shades in the American forest.

Were I on the banks of the Hudson, I would seek out and select some sequestered spot where Downing used to ramble in his meditations; that spot I would consecrate to the lover of nature, adorned and beautified by art; and there I would plant "the fragrant birch," whose beautiful and stately trunk should point heavenward, while its fragrance should lend a sweet perfume to the surrounding atmosphere, and through whose leaf and "little brown tassels hanging from its drooping branches," the sighing breeze should sing a requiem o'er his departed spirit, as it would occasionally return, methinks, to visit that consecrated spot. Respectfully yours, Eli Moore. *Southington, Conn.*



Black Birch. *Betula lenta*, Lin. (Male flower.)

Cultivation of the Cranberry.

Most of the attempts at cultivating the cranberry have been decided failures; but a very few quite successful experiments have served to keep up a succession of efforts, with the hope of final and uniform success. Most usually the most sanguine have had to hope against hope. A very enterprising cultivator has just informed us that although his plants grow well, and begin to bear, on the low ground on which he has planted them, and where they succeed much better than on upland, yet the growth of the grass so greatly overtops them, that he is nearly ready to give up the struggle, having spent about forty dollars already the present season in fruitlessly endeavoring to weed them.

A letter lately received from a close and experienced cultivator, contains the following remarks on this subject: "Much has been said about raising cranberries on *upland;* but I think the main point has not been understood. Such land as ours (strong, fertile soil of Western New-York) would not produce cranberries; but I have seen such among the Pennsylvania mountains, (called the Beech Woods,) which would doubtless prove congenial to that plant. It requires a cold, sour soil, such as would agree with the black spruce, and disagree with Indian corn.

"There are also great tracts in the primitive region north of the Mohawk, which I should judge would be very favorable—wet, sour land, where corn would refuse to grow, or to any advantage. Could not such farmers, depending on oats or barley, and potatoes and cranberries, do as well as many who cultivate wheat?"

---

* We have been compelled to reduce the drawing to one-half its original diameter.—Ed.

The Calceolaria.

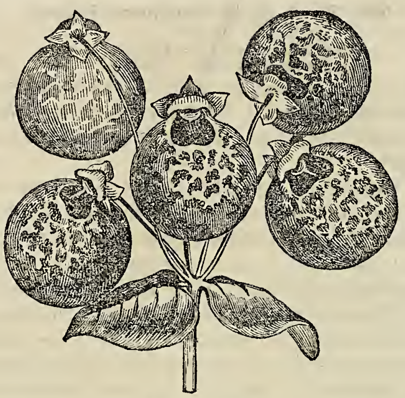
This interesting plant has much to commend it to the attention of the cultivators of flowers. Like the tulip, pansy, rose, phlox, &c., it runs into endless varieties, which quality of itself imparts great interest to any plant; and besides, its uniquely formed spotted, showy flowers, are highly ornamental. It is only a few years since it has attained a high rank among florists' favorites. Innumerable sorts have been raised from seeds, all, however, retaining the peculiarity of the original, of globular, spotted, blotched, or striped corols; and like the breeders of fine animals, certain cultivators have been eminently successful in greatly improving their size and beauty. In a similar way, an unskilful hand will procure seeds of these highly improved sorts, and allow them to degenerate as fast as an unskilful raiser of domestic animals.

The varieties are comprised under two general heads, the herbaceous perennials, and green-house shrubs. The latter are most highly esteemed, although the former bear larger flowers.

In cultivation, the first thing is to procure a suitable soil in a well-drained pot,—well drained, because the plants at one stage grow rapidly, and consequently need copious waterings at that period, the surplus of which must drain off freely. The soil may be manufactured by taking two parts of good friable loam, one of leaf mold, one of *thoroughly* rotted stable manure, and one of coarse or fibrous peat—the latter for the purpose of rendering the whole porous for drainage. Thorough mixture of the whole is necessary, as well as the removal of the coarser with a sieve. This may seem like taking much trouble, but the best way is commonly the cheapest.

The seeds are usually sown after mid-summer, and at first need much attention. They must be very thinly and evenly covered with pulverised soil, over which a bell glass must be placed till they come up, and when watered it must be done through a very fine rose, that the water may fall like dew, and not wash the soil. Shading from the sun, by placing a white paper or cloth on the sunny side of the bell glass, will be requisite. When the seeds come up, they are, as they continue growing, successively separated or thinned out, and transplanted into pots, till large enough to remain in those intended for their permanent destination, which should be six-inch pots. Through the winter they will need the ordinary care of green-house plants, and should be watered sparingly; but on the approach of warm weather, when they recommence rapid growth, they will need a full supply of water. The amount given must be regulated by circumstances, as the state of the weather, rapidity of vegetation, &c.; on giving just enough, and not too much, depends much of the successful treatment of this plant. When the sun is hot, shading must not be forgotten.

The shrubby plants are propagated by cuttings or off-sets. After blooming, the flower stalks are cut down, they are placed in shade, and growth encouraged. The young shoots or sprouts, even if quite small, will make good cuttings, which may then be placed round a pot, in contact with its sides, in a thin stratum of silver sand, and reaching down just far enough to touch the compost. This pot is put within another a little larger, and between them the lower rim of a bell glass is placed, to preserve uniform moisture. The cuttings will have struck when they recommence growth, until which time great care must be taken to preserve a constantly uniform moisture of soil. If intended to raise from off-sets, the plants after pruning must be buried deeper for this purpose.



The Calceolaria.

During growth, great care should be given to the habit of the plant, to prevent the too common weak and slender form, and to impart to them a full, round, and bushy appearance. The flowers, if good, will not be thin or flat, but a perfect, rounded, hollow ball,—they will form rich masses, without crowding, and the whole bloom should be one handsome bunch of pendent flowers, scarcely above the foliage.

A Valuable Grape.

L. Tucker, Esq.—I observe in the August number of Mr. Barry's Horticulturist, page 387, "Will you please inform me whether there is any good kind of grape other than the Isabella and Catawba, that will grow in our cold northern climate? A. Reader, *New Athens, Pa.*"

I have a vine producing a grape of similar color to the Isabella, and it is more sweet and delicious than any Isabella I have eaten. In the winter of 1832, when the Isabella and most other vines were frozen and killed down to the ground, my vine suffered in the small shoots which ought to have been trimmed off, but the larger branches put out and bore fruit the following season. If you please, you may give this notice to Mr. Barry. Slips of round and sound wood, well ripened and of short joints, will produce good vines to bear grapes the second or third year. This I know by trial. David Tomlinson. *Schenectady, August*, 1853.

Houghton's Seedling Gooseberry.

We see a statement going the rounds of the papers, quoted from the Connecticut Valley Farmer, that "Houghton's Seedling, so loudly applauded as mildew-proof with us, is no more exempt than "Roaring Lion," "Crown Bob," or any other variety." It is perfectly evtdent that the person who wrote this could have never cultivated the *genuine* Houghton. Out of hundreds of bearing plants, during the most unfavorable seasons, when Crown Bob and Roaring Lion were ruined by mildew, not one berry on any of the Houghton bushes had a speck of mildew upon it, and this is the general voice of cultivators in the Northern States.

The Grazier.

South Down Sheep.

Many of our readers are aware that it is the common practice of eminent breeders in England, to let, annually by auction, to the highest bidder, such male animals as they have to dispose of for the year. Among those lettings, that of Mr. Jonas Webb of Babraham, the celebrated breeder of *South Down Sheep*, is one of the most attractive. His 27th annual letting was held at his place, on the 6th of July, at which were present several hundred gentlemen, including many from other countries; and among them, Mr. F. M. Rotch of Morris, Otsego county, in this State, who, it will be seen, procured the favorite buck let on this occasion, paying therefor the handsome sum of 130 guineas, about $650. We copy from the Mark Lane Express:—

> "The annual letting of Mr. Jonas Webb's celebrated tups took place on Wednesday, Mr. King officiating as auctioneer. The attendance was about as large as usual. The animals met with unqualified admiration; and one hired by Mr. Rotch, an American, fetched the astonishing price of 130 guineas, being the highest figure yet obtained by any single tup since Mr. Webb has commenced as breeder. There were 71 sheep let, which netted £1,580, being an average of £22 4s. Previous to the letting every animal has a reserved bid fixed upon it, by Mr. Webb himself, and it is but justice to that gentleman to say that every tup put up realized more than the price put upon it. Indeed, the aggregate produced £500 more than the reserve; one instance we might name, of a ram being fixed at $5 5s. fetching £18."

At the dinner given on the occasion, at which the Earl of Hardwicke presided, Mr. Rotch responded in a brief and appropriate manner to the customary toast—"The hirer of the highest prize tup of the day." Mr. Webb, in proposing the toast, alluded to the fact that he had sold, some nine or ten years since, to the father of Mr. Rotch, one of his best rams for 50 guineas, ($250.)

◆

Product of Half-Blood Ayrshires.

Messrs. Editors — From seeing an account of a widow's heifer named "Cherry," in the "Country Gentleman," pages 163 and 388, I am induced to give you a short statement of my heifer, "Cherry 2d."

Cherry 2d was three years old in May last—is a cross between a *good* native cow, and an "Ayrshire" bull raised by Mr. E. P. Prentice of Albany, N. Y. She dropped her first calf June 8th, 1853, and in ten days from the 14th, she gave 410 lbs. 15 oz. of milk, averaging 41 lbs. 1½ ounces per day. The lastday of June she gave 39¾ lbs. of milk, measuring 16½ quarts after it was strained, which made one pound four and a half ounces of butter—making eight pounds 15½ ounces per week, on grass only, and would have probably made more, if she had given as much milk on that day as usual. She gives as much milk now as at the time of trial. I intend you shall hear farther from her sometime.

I have also two four year old cows of the same blood, which stand only three feet 10 inches high, and weighed the first of this month, after driving four miles, 700 and 720 lbs., and gave during the same ten days, viz—from June 14th to June 25th, 411 9-16th lbs., 396 14-16th lbs. of milk; and the three have made, (after using milk and cream for a family of six persons, and also milk before it is soured to raise a calf,) to average three and three-fourths pounds of butter per day. Very respectfully yours. A. D. Arms. *East Montpelier, Vt., July* 16, 1853.

◆

Charcoal for Sheep.

One of the best medicines for human beings, is finely pulverised fresh charcoal, kept corked in a close vial or jar, one-half to a teaspoonful mixed with five times its bulk of water, forming an agreeable and excellent remedy for almost any kind of deranged stomach, and in larger doses constituting a very mild and perfectly safe laxative. There is no doubt that the same remedy would often prove of great service to domestic animals. Although we have never seen it tried, we confidently predict that half a pint to a pint of powdered charcoal, mixed with two to four quarts of water, would prove an admirable remedy for hoven in cattle. We observe that a correspondent of a late paper has used charcoal mixed with salt for his sheep, with the best results; he had found them, in accordance with usual experience, to suffer much on wet pastures, until he made use of this remedy, after which they immediately presented a more healthful appearance, and have continued to thrive, the salt as well as the charcoal operating beneficially.

◆

Feeding Cattle around Stacks.

When a corner or knoll in the meadow is found to be in a poor condition, farmers often attempt to enrich such places by making a stack of hay on the ground, and foddering it out, expecting to reap a double benefit of improving the land, and saving the trouble of carting the hay and manure. Let us examine the arguments for, and objections to, this course of procedure.

The ground in this climate is always frozen in winter and covered more or less with snow, and consequently the liquid manure freezes upon the snow, and as the snow melts before the ground thaws and settles sufficiently to absorb the fertilizing qualities of the manure, the most valuable portion is lost entirely. The heavy rains drench the solid part of the manure, and alternate thawing and freezing destroy its strength, so that the soil is comparatively little benefited.

Another prominent objection is, that the cattle or sheep thus exposed in some bleak place, consume about one-fourth more food than would be necessary, if comfortable stables were provided for them, and they come out emaciated and sickly in the spring. Thus instead of securing a double profit in stacking the hay, a threefold loss is sustained—namely, the better portion of the manure—a considerable portion of the hay, and in the condition of the stock. Cows, kept during winter in this way, require a long time to recover from the effects of exposure, and frequently the season is far advanced, and the grass becomes dry and less succulent, before they regain their flesh—thus very much lessening the profit arising from them.

True economy consists in keeping cattle in good condition with the least quantity of food, and in making and saving all the manure possible. Proper attention is not given to composting manure, for I still regard it as at the basis of remunerative farming. It is the great thing to make our farms fertile; for drouth or excessive rains do not injure a rich soil as they do starved land.

A single suggestion from your excellent paper has often been worth more than a year's subscription to me, and I have ventured to send these with the hope of contributing to the improvement of my brother farmers. An attentive reader, D.

◆

Points of Excellence in Cattle.

Adopted by the N. Y. S. Ag. Society, for the guidance of the Judges at their Annual Fairs.

AYRSHIRES.

Purity of Blood, as traced back to importations of both dam and sire, under such evidence as will satisfy committees.	
The Head, as in other breeds, small; the face long and narrow; the muzzle and nose variable,	4
The Eye placid and not strikingly large,	2
The Ear of full size, and of an orange color within,	4
The Horns small, tapering, with an outward and upward turn, and set on wide apart; the face somewhat dishing,	2
The Neck, of medium length, clean in the throat, very light throughout, and tapering to the head,	4
The Shoulders lying snugly to the body, thin at their top, small at their points, not long in the blade, nor loaded with muscle,	6
The Chest must retain sufficient width and roundness to insure constitution. The lightness of the fore quarter, and the "wedge-shape" of the animal, from the hind quarter forward, arising more from a small, flat and thin shoulder, than from any undue narrowness of the chest,	12
The Crops easily blend in with so thin a shoulder and prevent all hollowness behind,	4
The Brisket not over-loading the fore end, but light,	4
The Back should be straight, and the loin wide, the hips rather high and well spread,	8
The Pelvis roomy, causing a good breadth at what is termed the "thurl," or "round-bone," and between the points of the rumps,	4
The Quarters long, tolerably muscular, and full in their upper portion, but moulding into the thighs below, which should have a degree of flatness, affording thus more space for a full udder. The flank well let down, but not heavy,	6
The Ribs, behind, springing out *very* round and full, affording space for a large udder, which by Ayrshire breeders is considered very essential to secure the milking property; the whole carcass thus acquiring increased volume towards its posterior portion,	8
The Rumps nearly level with the back, projecting but little,	4
The Tail thin in its cord, of full length, light in its hair, and set somewhat farther into the back than would be admissible with some other breeds,	1
The Legs delicate and fine in the bone, inclining to be short, and well knit together in the joints,	3
The Udder in this breed is of more especial importance, as the Ayrshires have been bred almost exclusively with reference to their milking properties. The great feature of the udder should be capacity, without being fleshy. It should be carried squarely and broadly forward, and show itself largely behind. As it rises upward it should not mingle too immediately with the muscle of the thighs, but continue to preserve its own *peculiar* texture of skin — thin, delicate, and ample in its folds. The teats should stand wide apart, and be lengthy, but not large and coarse,	12
The Handling will show the skin to be of medium thickness only, moving freely under the hand and evincing a readiness in the animal to take on flesh, when a drain on the constitution is no longer made by the milkpail,	6
The Hair soft and thick, in the phraseology of the country, woolly,	4
Color, varies—a dark red, a rich brown, a liver color, or mahogany, running into almost a black; those very much broken and spotty at the edges on a white ground are the favorite colors at the present time. The light yellow is, however, a color sometimes found on very good cows, but these pale colors are objected to from an impression that such belong to animals of less constitution,	1
Carriage should be light, active, and even gay; this latter appearance is much promoted by the upward turn of the horn,	1
	100

Points of the Ayrshire Bull.

As regards the male animal, it is only necessary to remark, that the points desirable in the female are generally so in the male, but must, of course, be attended by that masculine character which is inseparable from a strong and vigorous constitution. Even a certain degree of coarseness is admissible, but then it must be so exclusively of a masculine description, as never to be discovered in the females of his get.

In contra-distinction to the cow, the head of the bull, may be shorter, the frontal-bone broader, and the occipital flat and stronger, that it may receive and sustain the horn—and this latter may be excused if a little heavy at the base, so its upward form, its quality and color be right. Neither is the looseness of the skin, attached to, and depending from the under jaw, to be deemed other than a feature of the sex, *provided* it is not extended beyond the bone, but leaves the gullet and throat clean and free from dewlap.

The upper portion of the neck should be full and *muscular*, for it is an indication of strength, power, and constitution. The spine should be strong, the bones of the loin long and broad, and the whole muscular system wide and thoroughly developed over the entire frame.

◆

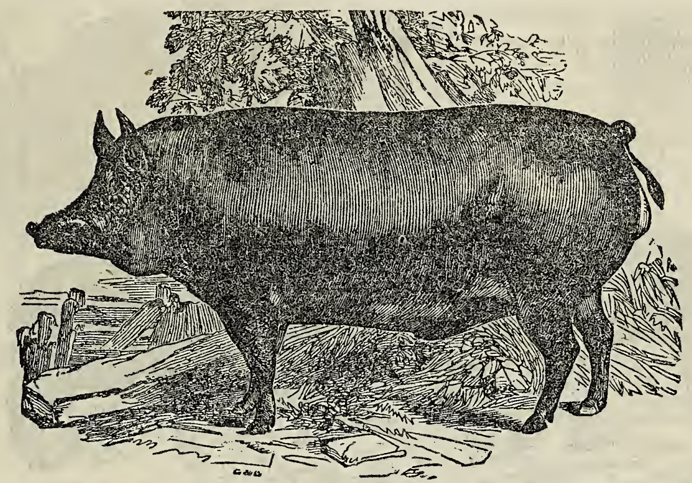
Fattening Sheep.

It is sometimes an object to fatten sheep rapidly in summer, and also to fatten off old sheep which cannot be readily fattened on pasture alone. In either case, good pasture and the feeding of a moderate quantity of grain daily, will generally effect it very advantageously. One bushel of grain fed to sheep in summer, will make as much fat as three or four fed in winter; hence they may be fattened off most rapidly, and with least expense, in summer and fall.—*Canfield.*

◆

Kentucky Sheep.

The Frankfort Yeoman says, that a few days since Robert W. Scott, of that county, sold fifteen of his fine fat wethers at fifteen dollars each, after shearing from eight to ten pounds of superior wool from each of them. They are of Mr. Scott's new and now quite celebrated breed, which he calls "Kentucky Sheep," and which he has produced, during the last eighteen years, by judicious crossing with all the best imported breeds; having commenced originally with the common sheep of the country. They have large and symmetrical carcasses, are very thrifty and prolific, and yield heavy fleeces of medium wool, an exceedingly beautiful article that well deserves the premium of from 3 to 5 per cent. per lb., which it usually commands over the common wool of the country.—*Ohio Cult.*



Improved Essex Pigs.

Of this breed, one of which is represented above, Sanford Howard writes as follows, in the Wool Grower and Stock Register:

This is one of the most valuable breeds now known. The establishment of the breed is generally credited to the late Lord Western. It has of latter years been extensively known in the hands of the noted breeder, W. Fisher Hobbs, of Marks-Hall, Essex. It has perhaps, carried more prizes at Smithfield, within the last ten years, than any other breed. As before mentioned, it was derived from a cross with the Neapolitan, and inherits the color of that race, with more size, finer symmetry, and much better constitution. Stephens, author of the Book of the Farm, and the Farmer's Guide, says: "As to the breed which shows the greatest disposition to fatten, together with a due proportion of lean, I never saw one equal to that which was originated by Lord Western, in Essex..... They were exceedingly gentle, indisposed to travel far, not very prolific, however, but could attain if kept on, to a great weight, and so compact in form, and small of bone and offal, that they invariably yielded a greater amount of pork than was judged of before being slaughtered. The offal was small, and more delicious ham was never cured than they afforded." Martin says: "These animals fatten quickly, grow rapidly, and yield very superior meat. The hogs, when fattened, will sometimes weigh 26 or 28 stones, (14 lbs.,) often 18 or 20,"—equal to 252 to 392 pounds.

The only animals of this breed in this country, within our knowledge, are in the possession of L. G. Morris, Esq., of Fordham, Westchester county, N. Y., or of persons who have obtained the stock of him. His first importation was made about a year since, and his last the past autumn. Some of these animals were procured directly from W. Fisher Hobbs, and were of that gentleman's best stock.

A variety of the Sussex breed is closely allied to, and may be identical with the Essex. Some of this variety were introduced into this country several years since by Mr. Henry Parsons, now of Guelph, Canada West. The writer of this article obtained stock from Mr. Parsons, and from the experience of several years, can say he never had any swine that gave more weight of carcass in proportion to the food consumed, and never any which equalled them in quality of meat.

There is a white, or nearly white variety of Essex. Specimens were imported by the late Mr. Stickney, a part of which are now in the possession of Mr. H. H. Williams, of Roxbury, Mass.

Vicious Cattle.

The common "vice" of jumping and throwing fences is *taught* to cattle, with scarcely an exception, by their owners and care takers. Fences half down, soon fall by the rubbing of cattle, and teach the first lesson, especially if cattle have any shrewdness in observing cause and effect; very fine feed just over a very poor fence, is the next lesson; letting down bars and rail fences to the halves from laziness, so that the animal has to take a leap, is the third lesson—and this last is often first, second, and third with sheep, until they will scale anything. These three lessons are usually quite enough, but a fourth is often added, namely, placing one additional rail on the fence each successive day, as they become more skillful, for the ostensible object of keeping the jumper within bounds, but really operating as a most ingenious contrivance to teach the art of vaulting. We have heard of French being "taught in six lessons;" but very few animals require more than the above four to enable them to take "French leave" of any ordinary enclosure.

◆

Hoven in Cattle.

The practice of puncturing with a knife when severe cases occur of hoven in cattle, we have long been acquainted with, and know its safety and efficacy. As it is, however, very important to make the incision in the right place, we give the following directions, from the *Farming Mirror*, a new and useful monthly agricultural journal, just commenced at Lyons, N. Y. "Take a piece of twine, and hold one end on the most prominent point of the left haunch bone, the other end on a point formed by the union of the last rib with the spinal column or back bone. A point at equal distance from each end of the string will be the place to puncture. Use a sharp pointed knife, about three inches in length, and with sufficient boldness to make the incision at a single effort."

◆

Hogs in Kentucky.—Returns from fifty-seven counties in Kentucky show that there has been an increase of 123,000 hogs, over the same period last year.

SPANISH MERINO EWES, THE PROPERTY OF GEORGE CAMPBELL, WEST-WESTMINSTER, VT.

Messrs. Editors—The above cut represents a daguerreotype view of a group of Spanish Merino Ewes, which are descendants from the original Spanish stock imported by Hon. Wm. Jarvis of Vermont, and Mr. Humphrey of Connecticut, more than forty years ago. They are about as large as is profitable for wool growing. The Ewes, when full grown, weigh from 80 to 100 lbs., and bucks from 125 to 150 lbs.

The great object which I have had in view in breeding this stock of sheep, is to combine a good form with a heavy fleece of fine wool.

Their wool is of a beautiful style, long, thick and fine, with a natural oil sufficient to form a dark surface, which is a strong indication of purity of blood. My yearling and two year old Ewes of this stock, sheared of less than one year's growth, an average of more than eight pounds per head of unwashed wool.

I have made a few crosses on this stock, with the Silesian Merino Ram, and find that it does not diminish the quantity, while it increases the quality 25 per cent.

Mr. Samuel Wheat of Putney, used one of our Silesian bucks to his whole flock, which improved the quality, as well as increased the quantity more than 1 lb. per head. His yearlings averaged 6 lbs. 10 oz. per head, which readily sold at 60 cents per lb. Others in this vicinity, having used Silesian bucks, are equally well satisfied with their stock. Geo. Campbell. *West Westminster, Vt., July* 28, 1853.

◆

Mr. Campbell's French Buck "Matchless."

In the 29th No. of the Country Gentleman, and also in the Cultivator for August, we gave a portrait of what was erroneously stated to be a "Spanish Merino Buck," but which was in fact the portrait of a *French* Merino called "Matchless," imported and owned by George Campbell, Esq., of West-Westminster, Vt., and Wm. Chamberlain, of Red-Hook, N. Y. "Matchless," says Mr. Campbell, "is five years old—live weight 280 lbs.—fleece of one year's growth, in its natural state, about 25 lbs., and was from Mons. Cugnot's flock." The same gentlemen have recently received an addition to their former importations of sheep, by the ship Humboldt.

◆

Importation of Stock.—We learn that the Southdown buck bid off by Mr. Rotch, at 130 guineas, at Mr. Jonas Webb's letting on the 6th July, alluded to in our No. 30—p. 55, was for Jonathan Thorn, Esq. Washington, Dutchess Co. We are also informed that Mr. Rotch, in company with a son of Mr. Thorn, has been engaged for some months in examining the best herds and stocks of England, for the purpose of selecting for Mr. Thorn, the very best animals of different kinds, which can be procured, without regard to price; and that they have purchased quite a number of those which received the premium at the show of the Royal Ag. Society on the 11th of last month. They will also attend the sale of the stock of the late Earl Ducie, which is to take place on the 24th and 25th of this month, where they will probably become large purchasers. Their purchases, while abroad, will include horses, cattle, sheep, fancy poultry, rabbits, &c.

Cheap Sheep.—In a work entitled "Two Thousand Miles' Ride through the Argentine Provinces," the author, Mr. McCann, in speaking of Mr. Handy, an Irishman, at whose house he stopped at night, says: "He had lately been in the South buying sheep, where, by good management and a little patience, he obtained eight thousand, at *eighteen pence per dozen!*—four copper reals each."—*Panama Herald.*

Black Leg.—In answer to an inquiry for remedy for black leg in calves, E. Burnham states in the Ohio Cultivator, that feeding salt once in two days has proved successful. If they are fed as much as they will eat, not less than once in two days, the remedy is certain.

Notes for the Month.

Atkins' Self-Raking Reaper.—This machine was in successful operation on the farm of B. B. Kirtland, Greenbush, on Wednesday and Thursday of last week, and elicited the approbation of every one who saw it. It is impossible to convey in words any idea of the mechanical construction of the raking attachment. The cutting apparatus does not differ materially from that of other reapers, but at regular intervals an arm, to which a rake is attached, extends itself to the farther part of the apron, slowly draws itself the length of the apron pressing the grain against a plate, where it holds it till it swings around a quarter of a circle, clear of the machine, and coolly deposits its neat sheaf on the ground, when it immediately returns to repeat the process. The machine is not of heavier draught, apparently, than other machines—and it does its cutting fully equal to any reaper we have seen work. While it has no superior as a practical thing, it is a curiosity worth quite a pilgrimage to see. It comes the nearest to being instinct with life, and manifesting signs of intelligence of any piece of mechanism, not excepting the steam engine. The advertisement of the agent, J. S. Wright, may be found in another column.

Agricultural Education.—A correspondent of the Geneva *Courier*, proposes to convert the Medical College of Geneva, into an institution for instruction in the science of Agriculture. His proposition, as we understand it, is to appoint four professors on Agriculture and the sciences particularly connected therewith, who are to lecture during the winter months, thus enabling the sons of farmers who work at home during the summer, to devote the time during which they can best be spared from the farm to the study of the general principles of agriculture. This plan is the same in character as that contemplated by the University of Albany, and which, but for the unfortunate and lamented death of the late Prof. Norton, would have been carried into effect. Believing that such a plan was best adapted to supply the present wants of our farmers' sons, we earnestly desired to see it carried into effect here, and we shall greatly rejoice if the trustees of the Geneva College or any other institution in the State, shall make provision for suitable courses of lectures for our young farmers during their seasons of leisure. It would afford facilities for instruction and improvement, now nowhere to be obtained, and which, we doubt not, would be appreciated by the agricultural community.

Emery's Mowing Machine.—Since the trial of mowers at Greenbush, Mr. Emery has succeeded in simplifying his machine, so as to render it more compact, more easily managed, and more readily adapted to uneven surfaces. This has been done by removing the forward wheels and balancing the machine on the driving wheel, at the same time retaining all the advantages of the hollow-knife-bar, crank axle, and the arrangement of the cutter. The machine has been in use the past week, and will, we predict, become one of the most valuable mowers. The change in its form does not prevent its working equally well as a reaper.

Mr. Howard, of the Boston Cultivator, says of it—"Its operation was decidedly improved, especially as to the facility of turning. The cutting apparatus appears to be very perfect, and its work was done in a manner not to be excelled. With some further modifications in reference to avoiding its side draft and simplifying its management, it may take the field in fair competition with the best."

Town Ag. Society.—The Annual Cattle Show of the Cape Vincent, (Jefferson Co.) Ag. Society, will be held on the 8th of September.

Tannic Acid for Strawberries.—In an article on the culture of the strawberry, in a recent number of a New-York Journal, we find the following:—

> "Scientific cultivators have applied tannic acid to their beds, and have expressed their full conviction of its value as a fertilizer. Messrs. Hovey and others have ridiculed the application without, as it seems to us, presenting any very satisfactory experiments to back up their opinions. They attribute the increased size and the improved flavor of the berries to the water in which the tannic acid is administered to the plants, rather than to the tannin."

We should be glad to know what "scientific cultivators" have applied tannic acid to their strawberry beds. That spent tan-bark has been used as a mulch for strawberry beds, and with the best effect, we know,—also that such beds have been freely watered with a liquid consisting of "one gallon of tan-bark liquor to one hundred of water," with a good effect, we do not doubt; but that there was any tannic acid in the spent tan or in the tan-bark liquor remains to be shown. If we mistake not, the authority for this statement is the same as that which proclaimed that "toads were very fond of strawberries, and select the best for their own eating," and that there is just as much proof of the one statement as the other.

Comstock's Terra-culture.—I am more than ever convinced that Comstock's system is not a humbug, and I know that there is not one farmer in ten, and I think not one in one hundred, but what violates his laws (which I believe are the laws of nature,) in cultivating corn and potatoes, and most other crops. I have done more than most, I think, but all who I know, do it more or less. If he says "nothing more than all well informed men know," I have never seen the operations of a well informed man in a potato field. If any one pretends to give his secret, he had better hand it over so as to benefit the world. I don't advise any man to break his honor; but I don't like to have it go out that all the secret is out when nothing of much benefit is before the public. How is it with corn, potatoes, rye, wheat, oats, &c.? My corn looks well, potatoes very good, &c. I must still believe that his system is a law of nature, as plain as the "nose on a man's face," only it has escaped our notice. David Lyman. *Middletown, Conn.*

Rosendale Cement.—This Cement can be procured of W. R. Barrett, No. 120 Pier, Albany—price \$1.37½ per barrel.

Queries for our Correspondents.

Best Cows for Milk—Which will make the most butter, in proportion to the cost of keeping, the "Ayrshires" or the "Short-Horns?" A. D. Arms. *East Montpelier, Vt.*

Poultry—Will you or some of your correspondents publish through the columns of your truly valuable journal, "The Cultivator," the best mode for the management of a small flock of hens on a farm, say 50 or 60—and the best plan for building a roost—also which are considered the best layers. S. W. J. *Hyde, N. Y., July* 20, 1853.

Multicole Rye.—Can you or any of your correspondents tell me where I can get some of the Multicole Rye and at what price? C. C. *Huntley Grove, Ill.*

Tar and Felt Roofing.—I shall be greatly obliged if you, Messrs. Editors, or some of your correspondents, will give me a specific receipt for the ingredients composing what is termed Tar and Felt Roofing. F. N. C.

Disease in Chickens.—My chickens have a disease which they have never been afflicted with before, and which baffles all treatment. They commence to shake and stagger, and soon are unable to follow the hen; and about the second day they are unable to walk, and lie down on one side, and have no power in their legs at all; they eat as readily as when well, but do not drink so freely. Would some of your numerous correspondents inform me what the disease is, and what is the remedy? A Subscriber. *Juniata Co., Penn.*

Artesian Wells.—Will you please to inform me as to the implements used, and manner of using, to make Artesian Wells? If proper, I would ask for a drawing of the implements, or so much that I may understand the process. S. Reynolds. *Lockport, N. Y., Aug.*

Answers to Inquiries.

Sowing Clover.—Will you inform me through the Country Gentlemen or Cultivator, if it will answer to sow red clover seed in the fall? C. C.

At the north, it fails in consequence of the action of cold and the heaving of frost combined, and the young plants if of late autumn growth only, do not become strong enough to resist both of these influences. If sown early in autumn or in summer, the seed or plants are apt to fail from hot sun and drouth. We have repeatedly sown clover early in spring and covered it with a brush or light harrow, without allowing any other crop to occupy the ground, and had a fine luxuriant growth before mid-summer.

Steam Apparatus for Cooking Food for Hogs.—In answer to an inquiry of one of your readers, who asks information relative to the best mode of erecting a steaming apparatus for cooking food for hogs, I beg leave to state that I have used a barrel placed on the lid of a boiler in which cows' feed was being prepared. The barrel requires to be tight, with five or six auger holes bored in the bottom of it, with a similar number in the lid on which it is placed, having the holes in the barrel and lid opposite each other; then a lid for the top of the barrel, with a few auger holes of smaller dimensions than those in the barrel and lid, and the apparatus is complete.

The barrel I used contained three and a half bushels potatoes, which were steamed quite to my satisfaction without any extra fire over that which the cows' feed in the boiler, over which they were steamed, required.

It will be necessary to nail a rhind of cloth around the bottom edge of the barrel, to prevent the steam from escaping; and the water in the boiler must not be so high that it will enter the holes in the lid when boiling. I have not used it for steaming anything but potatoes. J. G. *Milwaukie, 18th July*, 1853.

A Subscriber, *Sing-Sing.*—The falling of your plums is occasioned by the curculio. For directions as to a remedy, see any of the numerous articles which have appeared in this paper, on the Curculio.

C. L. R., *Fairfield.*—I have a very fine thorough-bred Shepherd dog, good size, and every way desirable, which I will dispose of at a reasonable price. Think others may be obtained here. E. S. Dana. *Middlebury, Vt.*

Cranberries on Upland.—So far as my experience goes, and so far as I am acquainted with that of others, the *Cranberry* will not succeed except on low and wet places, this being its natural situation. A very good way to grow them in an artificial way, is to excavate a place, the size of the bed required, one foot deep, and fill it up with peat or bog mold, this being the soil it does best in. Means should then be insured to supply them with plenty of water, either by a stream, a pipe from a pump, or an hydraulic ram. The supply should be liberal. By this means a supply of cranberries may be obtained in any place; and where no opportunity exists to grow them naturally, it is almost useless to attempt to grow them without this preparation. Cuttings from the old or young wood will take root, with or without heat in a frame, and if planted out two feet apart will soon fill the bed. Dung or garden mould is peculiarly injurious to this plant, and should on no account be used. Edgar Sanders. *Albany, July* 26. 8, 1853.

Highland Nurseries, Newburgh, N. Y.

A. SAUL & CO., in calling the attention of their patrons and the public in general, to their very extensive stock of FRUIT AND ORNAMENTAL TREES, SHRUBS, &c., &c., which they offer for sale the coming autumn, would remark, that owing to the past summer being one of the most favorable for the growth of trees, which they have had for many years in this locality, their stock of *trees and plants, in every department*, is larger, more thrifty, and in every respect finer than usual.

To particularize within the limits of an advertisement would be impossible, they thefore refer *planters* and *dealers* of trees to their catalongue, a copy of which will be sent by mail to all *post paid* applicants for the same, on enclosing a post-office stamp.

They invite especial attention to their assortment of *Standard and Dwarf Pear and Cherry trees*, which are unusually fine, as well as Plum, Peach, Apricot and Nectarine; also Grape Vines, Gooseberries, Currants, Raspberries, Strawberries, &c., &c., in any known variety.

500,000 very strong two year old *Osage Orange* plants, in *three sizes*, at $10, $8, and $6 per thousand.

Buckthorn plants, $8 per thousand.

Newburgh, N. Y., Sept. 1, 1853—m2t

Syracuse Nurseries—Syracuse, N. Y.

THORP, SMITH, HANCHETT & CO., particularly invite the attention of Nurserymen, Venders, and Planters, to their immense stock of trees of every description, being of unusually fine growth.

Standard Fruits of Apples, Pears, Cherries, Plums, Peaches, &c., for orchard planting, vigorous, stocky, and well formed.

Dwarf and Pyramidal Pear Trees, on the best *Angers* or *French Quince Stocks* (embracing every good variety that will work well,) 2 years old, very beautiful, vigorous, and well formed.

Dwarf Cherries on Mahaleb Stocks, 1, 2, and 3 years old trees, finely formed and handsome.

Gooseberries, Currants, Raspberries, &c.—Our stock consists of the choicest varieties, including the new celebrated sorts.

Grape Vines, of all the hardy sorts, with some 40 foreign varieties, grown in pots from single eyes.

We would particularly request persons who are desirous of purchasing, to examine the above trees, as they are not only worked on the best stocks that can be procured, and grown in good soil—but they are stout, stocky, and vigorous, maturing their wood early in the fall; and as we pay the most strict attention to our trees, during every stage of their growth, we feel that no stronger guarantee of accuracy can be given in this respect.

Ornamental Trees—Such as Horse Chestnuts, Sugar and Silver Maples, Elms, Black Walnuts, Silver Abeles, Tulip trees, &c., we have very large and fine for street planting.

Shrubbery.—A splendid collection, containing everything new and rare.

Roses.—One of the largest collections in the country, including all the novelties. Also the celebrated "Augusta" Rose, which has given such universal satisfaction the present summer.

Bulbous Roots.—We are now receiving from Holland by steamer, a splendid importation of Bulbous Roots, comprising all the choicest varieties.

Green-house Plants, Fuchsias, Pompone Chrysanthemums, Verbenas, Dahlias, Strawberry and Hedge Plants, &c.

All orders strictly complied with in every respect, and articles packed in the best manner for transportation to any part of the United States. For further particulars see Catalogues.

No. 1. A general Descriptive Catalogue, combining Nos. 2, 3, and 4, in one volume.

No. 2. A general Descriptive Catalogue of Fruit Trees.

No. 3 A new Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, Flowering Plants, &c.

No. 4. A Descriptive Catalougue of Dahlias, Verbenas, Chrysanthemums, Geraniums, Fuchsias, Bedding out and Green-house Plants. Also a wholesale Catalogue or Nursery trade list. The above Catalogues will be sent gratis to all applicantions, (post-paid,) enclosing for the wholesale list one penny stamp—for No. 1 a letter stamp—and Nos. 2, 3, and 4, two penny stamps each.

THORP, SMITH, HANCHETT & CO.

Sept. 1—m2t—w37, 38, 39.

Great Auction Sale of Trees, &c.

WM. R. PRINCE & Co., Proprietors of the Linnæan Garden and Nurseries, Flushing, intend selling at Auction their immense stock of Fruit and Ornamental Trees and Shrubbery, of all sizes, about the 1st October next, the ground being wanted for Building lots. This is the best opportunity ever presented for new Nurseries to obtain full supplies, and for older ones to fill up deficiencies. Complete Catalogues and further information will be sent to all who wish to attend the sale. Sept. 1—3t—1t—m1t.

Geneva Nurseries.

THESE Nurseries are located just half way between Syracuse and Rochester, being fifty miles from each place, and the facilities for shipping trees are equal to any in the State. Our stock of trees is now extensive:—

30,000 Cherry, 1 to 3 years old.
30,000 Peach, 1 year old.
6,000 Plum, 1 year old.
150,000 Apple, 1 to 5 years old.
5,000 European Ash, (Mountain) large size.
6,000 Horse Chestnut, (large,) with a general assortment of other trees.

STOCKS FOR NURSERYMEN.

500,000 Apple, 1 and 2 years; 25,000 Pear, 1 year; 25,000 Cherry; 10,000 Plum; 5.000 Sweet Briar, 1 year from seed; 5,000 Mountain Ash; 50,000 Asparagus Roots; 50,000 Osage Orange, 1 and 2 years; 20,000 White Cedar; 5,000 Balsam Fir, 1 to 4 ft.; 2,000 Sugar Maples; 2,000 Hemlocks; 6,000 Norway Spruce; 120,000 Basket Willow.

Geneva, Sept., 1853.—m1t* W. F. & E. SMITH.

Fruit and Ornamental Trees, &c.

THE subscribers have the pleasure of announcing an immense stock of trees, &c., for the autumn trade—embracing

Standard Trees for Orchards.
Dwarf and Pyramidal Trees for Gardens.
Ornamental Trees for streets, parks, and pleasure grounds.
Rare and Beautiful Lawn Trees.
New and rare Weeping Trees.
Evergreen Trees, embracing the rarest species of Pines, Firs, Spruces, Yews, Cedars, Junipers, &c.
Hardy Flowering Shrubs.
Roses, of all classes, and embracing the newest and best sorts.
Dahlias—the finest English prize sorts.
Chrysanthemums—including the finest of the new Pompone varieties.
Phloxes and Pæonies—superb collections.
Bedding Plants—a complete assortment.
Bulbous Roots—just imported from Holland, and of the finest quality.
Hedge Plants.
Box Edging.
Rhubarb, Asparagus, &c., &c.

The favorable season has given everything a vigorous and fine growth. All orders, whether for large or small quantities, executed with the greatest care, and in strict compliance with the wishes of the purchaser. Packing done in the most secure and skilful manner, so that parcels can be transmitted thousands of miles with safety. Nurserymen and dealers in trees, will be supplied on the most liberal terms.

The following Catalogues are sent *gratis, and prepaid* to all who apply and enclose a postage stamp for each.

No. 1. Descriptive Catalogue of Fruits.
No. 2. do do Ornamental Trees, &c.
No. 3. Descriptive Catalogue of Dahlias, Green-house Plants, &c.
No. 4. Wholesale Catalogue.

ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, New-York.
Sept. 1—33—3t.—m1t.

Geo. H. Cherry & Co.,

River-Bank Nurseries, Rochester, New-York,

OFFER for sale a large assortment of FRUIT TREES of all kinds. The Trees are well grown, healthy and vigorous, and none other will ever be sent out. In addition to the above we offer, by request, a part of our young stock for transplanting, comprising—

100,000 Apples, 1 year from graft.
35,000 do 2 years from graft.
15,000 Cherries, 1 year from bud.
5,000 do 2 years from bud.
with Dwarf Pears, Peaches Plums, Appricots, &c.

Nurserymen desiring such stock, will find the above well worth their notice.

Orders for Trees are solicited, under a strong persuasion that we shall be able to give satisfaction. No pains will be spared to secure the confidence of the public.

GEO. H. CHERRY & Co.,
River Bank Nursery, North of St. Paul-street, Office 106 State-street, Rochester, N. Y. Aug. 18—w1tm2t.

SAMUEL MOULSON,

At the Old Nursery, Office 36 Front Street, Rochester, N. Y

IS prepared to furnish inventories to post paid applicants, consisting in part of—

120,000 dwarf and standard pear trees.
90,000 Apple trees.
50,000 Peach trees.
30,000 Plum, cherry, and apricot, over 100,000 hardy evergreens, and a fine selection of weeping deciduous trees, ornamental shrubs, hybrid perpetual roses, together with such novelties as may be classed strictly hardy. Also a very limited assortment of half hardy, small size, such as Cryptomeria Japonica, Cedrus Deodara, &c.

The amateur wishing prime fruits of well established repute, or the agriculturist needing fine cropping thoroughly tested varieties, may rely upon the most careful execution of their orders.

The ornamental items are entirely grown in the Nursery; consequently none of the heavy losses are sustained that usually occur to recently imported subjects

The evergreens are very robust, and admirably furnished to the surface of the ground, not presenting the naked stems usual to imported plants.

Dealers are invited to give a call before making their purchases. September 1—m1t.

Premium Strawberries.

WM. R. PRINCE & Co., Flushing, will send their Supplement Catalogue for 1853 and 1854, comprising the choicest collection of Strawberries in the Union, many of which are entirely new, and in no other collection. They are described in the April and May numbers of the Hort., and are free from any spurious admixtures, including the New Ohio varieties which are so often in a mixed state. The prices will be the lowest at which they can be any where obtained, and they will be packed so as to ensure their safe conveyance.

Applications for Catalogues to be post paid and enclose stamps. Sept. 1—34—1t—m1t.

Osier or Basket Willow.

THE subscriber will have for sale, to be delivered this fall or next spring, about 50,000 Willow Sprouts of the growth of this season, suitable for propagation or for baskets. Each sprout will make from four to five cuttings for planting.

C. N. BEMENT, 341 Broadway, Albany.

Aug. 11—w1am1m.

North River Agricultural Warehouse.

No. 53 Courtland Street, New York.

GEORGE H. BARR & CO., invite the attention of Farmers, Planters and others, to their large and varied assortment of Agricultural Implements, Manures, Seeds, &c., &c., all of which will be furnished at the lowest prices. Their assortment includes

PLOWS—All the improved kinds by the most approved makers.

HORSE POWERS—Of all kinds and sizes, with and without Thrashers, &c.

CORN SHELLERS—All the approved kinds, and some of recent introduction.

STRAW CUTTERS—Of all sizes and kinds, for hand and horse-power.

CORN AND COB CRUSHERS—Of all kinds and sizes.

FANNING MILLS, Cultivators, Harrows, Agricultural Barometers, Churns, of all the approved kinds, Rakes, Hoes, Forks, and a general assortment of Horticultural and Garden tools. Sept. 1—m2t.

Emery's Hay Press.

IN the August number of the Cultivator, appears an advertisement of a new firm, just formed, for an improved press, and alluding to my notice in a previous No. of the Cultivator, in no very flattering manner, which requires an explanation from me. Some years since. Mr S. W. Bullock, New-York city, 208 Broadway, patented an upright progressive lever press, and as a stationary and powerful machine it has no equal, and is in most general use on the Hudson River. Subsequent to this, Mr. Dederick combined two of Mr. Bullock's levers in the same press, and, as I learn, patented and introduced his improvement or new arrangement—not, however, without much difficulty and litigation with the owners of Bullock's patent, and, as I learn from th[illegible], have already paid upwards of $1000 damages and costs for his infringements, and "*the public are cautioned, under date of* 1852, *by the owners of said patent, not to purchase of Dederick or his agents, except at their own risk, as they are determined to follow him up and to prosecute for every violation of their rights.*"

This is all the patent Mr. Dederick can boast of, to my knowledge. As to the origin of a Horizontal press, it is well known to a great number here, that I designed a portable horizontal press, and long urged the said Dederick to take hold and get it up for me—offering every facility possible to aid him,—(he insisting it was impracticable). After nearly two years, he commenced and got up a model and a full sized press with our aid, and, as was supposed, for Emery & Co.'s exhibition at the State Fair in 1852, when to their astonishment, the press was left unfinished, and he enters the model at the fair as his own, and was awarded a complimentary medal, there being no premiums or competition for presses. Upon this beginning, a few presses were made, only two of which were furnished to Emery & Co., which two, as well as the others made that season by Dederick, broke and failed, causing much expense and disappointment. Since then, Emery & Co. have made large numbers after the original plans, substituting iron tension braces in place of heavy timbers, and light braced followers, working easily, and stronger than as made before, giving uniform and full satisfaction. They are offered at the lowest paying prices, and warranted superior as a portable and powerful press to any others in use. H. L. EMERY.

Albany, August 16, 1853.

Hickok's Patent Improved Cider Mill and Press.

WE have been appointed sole agents of this Mill and Press in the city of New-York. This is the most approved mill now in use. Catalogues, with description and drawing, will be forwarded by addressing us, post-paid.—Price $40. LONGETT & GRIFFING,

July 22—30—8t—m2t No. 25 Cliff-street, New-York.

Devon Cow for Sale.

FOR sale a thorough bred Devonshire Cow, at the low price of $65, half her actual value. All applications should be directed to C. REAGLES, Union Gardens and Nurseries, Schenectady, N. Y.

For sale cheap, 40 pure bred Shanghae fowls from 2 months to 1 year old, comprising White, Buff, Black, and Dominique colors—also 6 fine Black Spanish chickens.

September 1—m2t.

Country Residence.

FOR sale, a most desirable Country Residence, containing about twelve acres of land—a sandy loam—in a high state of cultivation, within three quarters of a mile of the principal business street in the city of Schenectady. On the premises is a large house 24 feet front by 70 in depth, replete with every necessary convenience; attached to the same, are all the necessary barns, out-houses, &c. The garden contains a large number of choice fruit trees, consisting of Apple, Cherry, Pear, &c.; also a number of evergreen and deciduous Ornamental Trees, together with a large quantity of Grape vines, Roses, new and rare Shrubbery. The fences are mostly new, and the house is in good repair, and has recently been fitted up as a residence for the proprietor, but other engagements render it necessary to dispose of the same. Price $2,500—less than the actual cost of the improvements. Possession given immediately; title perfect. Inquire of

C. REAGLES,
Union Gardens and Nurseries, Schenectady.

September 1—m2t.

First Great Annual Sale

Of Durham and Dairy Stock, in Westchester County, New-York, by JAMES M. MILLER, on the farm of JAMES BATHGATE, Esq., one mile from Fordham, and 14 *miles from the City Hall, New-York City, by the Harlem Railroad, cars running hourly, will take place on the*

20th Day of September, 1853.

HAVING been solicited by numerous Cattle-breeders, in my native County of Westchester, to get up a sale in which all may participate to any desired extent, whether wishing to sell one or more animals, and my old friend, *James Bathgate*, having kindly consented to give the use of his capacious premises upon which to make the first experiment, I have made the above announcement, and now invite all persons having high-bred and grade Cattle for sale, either in this or adjoining states, to participate in the advantages offered.

The name and full description of Animals intended for sale, with the owner's name and residence, must be sent to my office, No. 81 MAIDEN LANE, New-York, before the 12th of September next, to be inserted in the Catalogue, which will be ready for delivery on the 15th of September; and the Cattle must be on the ground before 10 o'clock on the day of sale, or the evening previous, if possible, which will commence precisely at 12 o'clock, *rain or shine.*

The charge for selling, including all charges for advertising, Catalogue, Commission, &c., will be *Five Dollars* per head, except when special bargains are made for calves or low priced animals.

None but Cattle of well-known breeds of established character, will be received, and every animal offered must be sold without reserve.

If the experiment is successfull, a sale will be held every year, at some convenient point, making a GREAT FAIR for the farmer and improved stock breeder.

To those who know me, it is needless to say I have sold more blooded Cattle than any other man in America; and to others it is a sufficient guarantee that the proposed sale will be fairly and honorably conducted.

JAMES M. MILLER, 81 Maiden Lane.

Sept. 1—m1t—w3t.

Agricultural Books

THE Transactions of the New-York State Agricultural Society, vols. 1 to 9, for sale at the Office of "The Cultivator," price $1 per vol.

Super-Phosphate of Lime—C. Deburgh's No. 1.

WE are the only authorized agents for the sale of Deburgh's Super-Phosphate of Lime in the city of New York. As there has been various spurious substances sold last spring for this superior manure, we request farmers and dealers to send their orders direct to our warehouse. We have sold about 300 tons this spring, and have received information from many that it was equal to guano in its immediate effect, and much more lasting in the land.

Any person who purchased from us Deburgh's Super-Phosphate last spring, which has not given satisfaction, by sending us notice, we will forward another lot for trial without charge. LONGETT & GRIFFING,
State Agricultural Warehouse, No. 25 Cliff-st.
New-York, Aug. 11—w8t—m1t.

Super-phosphate.

NO expense has been spared in the combination of this most fertilizing manure, which contains the natural properties of plants. It is superior to most of the articles offered for sale under the same name, and is inferior to none, although sold at a much lower price. It is put up in bags, at $40 per ton, of 2000 lbs., cash.

Office of the New-York Super-phosphate Manufacturing Company, No. 159 West-street, New-York.
Aug. 18—w1t—m3t VICTOR R. KNOWLES, Agent.

Manures.

PERUVIAN GUANO, Imp. Super-phosphate of Lime, Bone Dust, Bone Black, Sulphuric Acid, Potash, Poudrette, Plaster of Paris, Charcoal, &c., &c., for sale by
GEO. H. BARR & CO.,
Sept. 1—m2t. 53 Cortlandt St., New-York.

Farmers, Attention!

THIS is the proper season to use LEINAU'S AMERICAN FERTILIZER upon your farms. This truly valuable manure can be had at $25 per ton, or $3.50 per barrel, of the proprietor. Try it. It is now on exhibition at the Crystal Palace, New-York, and any amount of names can be given of its successful use. Also, Guano and Poudrette, Phosphate of Lime and Aqua Ammonia.
G. A. LEINAU,
Aug. 18—m3t. No. 19 South Front-st., Philadelphia.

Bone Dust Manure and Super-Phosphate of Lime.

THE EAGLE CHEMICAL CO., having recently made extensive additions to their works on Staten Island, are now prepared to meet the increased demand for the above named invaluable manures, and are ready to supply the agriculturists with any quantity that may be required.

The *Bone Dust Manure* will be of the same quality, and will be delivered at the same price as that heretofore furnished to the farmers of Staten Island, New-Jersey, and other parts of the United States. It will be ground into a fine powder, and warranted pure—and being perfectly dry, and well packed in clean barrels, can be transported at a small cost, either by steamboat or railroad.

The advantages of ground bones for manure are too well known by the experience of the past twenty years, to make any further recommendation necessary.

The *Super-phosphate of Lime*, or Sulphated Bones, may not, perhaps, be so well known in some parts of the United States, as the former, as it is a comparatively recent mode of applying the same ingredients; but from the great results already obtained by the agriculturists in England and the United States, it is likely to be preferred to all other manures in use.

The proprietors of the *Eagle Chemical Works* have for several years past been engaged in the manufacture of this article in England, where they have had the assistance of the most eminent *agricultural chemists in Europe*.

The Super-phosphate now prepared by them, has been tested on every variety of soil and crop in Europe, the United States and the West Indies, with the most invariable success. The manufacturers do not hesitate to guarantee it to be the most perfect manure that can be made. No ingredients will be used until they have been carefully examined and their purity tested, and the mode of preparing such ingredients, and the proportions used, will be such as the manufacturers have ascertained, by long and patient application of chemical science to be the most perfect, and which they have proved to be so, by the practical tests of agriculturists on almost every description of soil, and in every variety of climate.

It will always be kept at the highest standard of purity and excellence, and every lot made will be carefully analyzed and tested before delivery. It is warranted to prove a more valuable manure than the best Peruvian guano, being both more immediate in its effects upon the plant, and of more permanent benefit to the soil, besides being less dangerous in its application.

It will be composed entirely of Super-phosphate of Lime, combined with such proportions of ammonia and other ingredients as are necessary to restore that which has been taken from the soil by previous crops.

Raw bones, in addition to fat or gelatine, are composed of Phosphoric Acid and Lime combined, called Phosphate of Lime. It is the *Phosphoric Acid* that is of great value as manure to the agriculturist, and the object of applying sulphuric Acid to dissolve them is that by its alliance with the Lime which is in the bones the *Phosphoric Acid* is rendered more soluble or easily dissolved by rain; and the difference between raw ground bones and dissolved bones may in a plain way, be stated to consist in the fact, that by a careful addition of the proper proportions of sulphuric acid, the Phosphate of Lime in the raw bones is converted partly into Sulphate of Lime, which is a valuable manure, and a considerable portion of soluble phosphoric acid is left free to combine at once with the soil in readiness to act on the plant.

Thus it is that a small quantity of Super-phosphate of Lime will force a crop of turneps in greater weight than a larger quantity of raw ground bones, bringing them ready to the hoe at least ten days sooner. This is one of the most important properties of this Phosphate, derived from its peculiar preparation, and it will always be found, where used, to cause such a speedy development of the plant, as to enable it to escape the ravages of the fly and wire worm.

It is calculated that one bushel of this prepared Super-phosphate is equal in its effects to six bushels of ground bones in a raw state. Thus the concentrated form of this manure, and its small bulk makes its exceedingly convenient, and diminishes the cost of transportation and handling. 250 pounds to 350 pounds to the acre is sufficient for any ordinary condition of soil, and the whole cost will not probably be greater than the extra expense would be in the mere handling and carting the necessary quantity of stable manure to produce the same effect.

It may be sown broad cast, and plowed into the soil—or it may be drilled in with the seed. It may also be applied in the hills during the cultivation of corn or other crops, when it will stimulate the most sluggish growth into immediate action.

It will be delivered in Bags or Barrels, in such quantities as may be required, at the price of 2¼ cents per pound—and each package will be branded—Super-phosphate of Lime, Eagle Chemical Works, 62 Beaver Street, New-York.

Orders with cash, or satisfactory reference, to be sent to
ALFRED F. KEMP, 62 Beaver Street,
New-York, Office of the Eagle Chemical Works.

Atkins' Self-Raking Reaper.

THIS machine is now offered to the public and warranted to be a good self-raking reaper. It is also believed to be a good mower, but not yet having been sufficiently tested in grass (though it soon will be) it is not warranted to be equal to a machine made mainly or wholly to mow.

The raking apparatus is of novel and very simple construction, and not liable to derangement, and every farmer who has seen it in the harvest field, says it performs the raking better than a man can possibly do it.

Price of machines at Chicago, $175, of which $75 must be paid on giving the order, $50 upon successful trial, and $50 in note payable 1st December.

The machines are most thoroughly built and warranted.

☞ Descriptive circulars, with cuts, sent to post-paid applications. J. S. WRIGHT.
"Prairie Farmer" Warehouse, Chicago.
June, 1853—25—w13.—m3t.

To Flax Growers.

THE subscriber has invented and builds to order, a FLAX MACHINE, which, attended by two hands, is guaranteed to dress from three hundred to four hundred and fifty pounds of flax per day. The saving in labor and tow, by comparison, is considered equivalent to the cost of dressing flax by the best common machinery, used in this country and Europe. The new machine is made with care, to secure strength and durability, and can be run at a speed which requires more than two hands to attend it. Unrotted flax straw can be dressed by it. It can be driven by horse power or otherwise; and, being portable, can be sent any distance. For the present, the price of the machine complete, is $100. Those who wish to obtain it in season to begin operations next autumn, will do well to apply soon.
S. A. CLEMENS.
Springfield, Mass., March 9, 1853.—mtf.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y. Braintree, Mass.

Premium Agricultural Works, Albany, Y. N.

THE subscribers, proprietors of the above Agricultural Works, are the sole manufacturers of

Dederick's Patent Parallel Lever and Horizontal Portable Hay Press.

This press was illustrated in the 16th No. of the Country Gent., and the June number of the Cultivator. Since that time, some very essential and valuable improvements have been made A new and improved capstan has been invented, by which the horse (without being removed from the sweep) operates the press, both in packing the bale, and drawing back the follower, thereby dispensing with the windlass for drawing back the follower by hand. The horizontal press, illustrated in the 14th No. of the Country Gent., and the May number of the Cultivator, and *represented* as "H. L. Emery's portable hay press," is the horizontal press as first invented by Mr. Dederick, and exhibited at the New-York State Fair, held at Utica in Sept. last, and was published by said Emery without authority or consent. The Horizontal Press, as since improved, and at present manufactured by us, is universally admired and approved. Its advantages, compared with the upright or vertical portable press, are too numerous to be specified in a limited notice. Descriptive circulars will be promptly sent upon application. We warrant these presses in all cases, to give satisfaction or to be returned. Orders solicited and promptly filled.

DEERING & DEDERICK,
Corners of Bleecker and Franklin sts., Albany.
July 21—w29—mtf.

Improved Portable Cider Mill and Press.

HICKOK'S Improved Portable Cider Mill and Press, received following premiums in 1852, viz:—A Silver Medal at the Fair of the American Institute, New-York Diploma at the Franklin Institute, Philadelphia. First premiums at the State Fair at Utica, and at the Columbia and Rensselaer county Fairs, and a diploma at the Westchester County Fair.

Descriptive circulars sent free to all post-paid applications. See page 23 of this paper, for engraving, &c. Price $40.

Manufactured by W. O. HICKOK,
Harrisburg, Pa.

Sold by LONGETT & GRIFFING, 25 Cliff-st., N. Y.
EMERY & CO., Albany.
DANA BROTHERS, Utica.
PROUTY & CHEW, Geneva.
HIGGINS & CALKINS, Castile, Wyoming County.
C. E. YOUNG, Main-st., Buffalo.
O. GREGORY, Binghamton.
CHARLES ASHLEY, Ogdensburg.
D. LANDRETH, Philadelphia.
July 14—w3m—m3t.

Just Published,

STOCKHARDT'S CHEMICAL FIELD LECTURES—For Agriculturists. Edited, with notes, by James E. Teschmacher.

Opinion of Samuel L. Dana, M D. L.L. D.

The great and striking feature of this little book is, that written by an eminently practical teacher for a class of farmers whose good opinion of the value of science to agriculture was to be won, their experience has been placed above scientific conjecture, and their practical knowledge has been made the point of scientific illustration. Hence the work is more simple and intelligible than any other chemico-agricultural work which has yet appeared.

Devoted chiefly to the practical consideration and money value of manures, its views of vegetable physiology are at once comprehensive, transparent as water, and illuminated by style so bewitchingly simple and concise, that the reader, familiar though he may be with the subject, feels that he is carried onward under the guidance of a master spirit, and as he passes the old land-marks, sees them shining with a new light.

The book has yet to be written whose chapters on artifical manures shall equal Stockhardt's Field Lectures on bone and guano, and certainly no work has yet appeared, which has shed a clearer or milder light on the intimate connection between science and agriculture.

In truth, the great recommendation of this work is, that it is adapted equally to a class of readers who have yet to learn their A B C in agricultural chemistry, and to that other class whose diffusive reading, here finds itself compressed not less neatly than usefully. With regard truly yours,

JOHN BARTLETT. S. L. DANA.

Just issued, the Sixth Thousand of Stockhardt's Principles of Chemistry.

FOR SALE—a few sets of Apparatus in a portable form, prepared in Germany, and designed for the student, with or without the aid of a teacher. JOHN BARTLETT,
March 24—12—1t—e.o.m3t. Cambridge.

Agricultural Implements.

STRAW AND STALK CUTTERS—of all patterns.
CORN MILLS—both of Iron and Burr Stone.
CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.
ROAD SCRAPERS—of several patterns.
FANNING MILLS—of all the best makers.
SAUSAGE STUFFERS AND CUTTERS—of all patterns.
VEGETABLE OR ROOT CUTTERS—of approved kinds.
CORN SHELLERS—for hand and horse power.
VEGETABLE BOILERS—of Mott's and Bent's patterns.
GARDEN AND WHEEL BARROWS—of iron and wood.
HAY AND COTTON PRESSES—Bullock's patent.
BRICK MACHINES—of Hall's and other makers.
WAGONS AND CARTS.
PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam PLOWS—Eagle, Massachusetts make, and Minor & Hortons.

For sale at the State Agricultural Warehouse, No. 25 Cliff Street, New-York. Nov. 1—tf.

Albany Tile Works,

Corner Patroon and Knox Streets, Albany, N. Y.

DRAIN TILE of the following descriptions and prices, suitable for land drainage, always on hand, in large or small quantities, of the first quality, delivered at the Docks and Railroad Depots free of cartage.

Horse Shoe Tile.

4½ inch calibre, $18 per 1000 feet.
3½ " " $15 "
2½ " " $12 "

Sole Tile or Pipe.

3 inches calibre, $18 per 1000 feet.
2 " " $12 "

Horse Shoe Hand Tile, 8 inches calibre, for drains around dwellings, at $8 per 100 feet. Sole Tile, 4 inch calibre, for sink drains, at $4 per 100 feet—9 and 6 inch square, polished face Floor Tile, less than one-fourth the cost of marble, for basement floors and cellar pavements—9 and 6 inch square Bakers' Tile, for oven bottoms. Orders from a distance will receive prompt attention. A. S. BABCOCK.
Albany, April 14, 1853—16—13t—e6m.

Super-phosphate of Lime.

IN bags and barrels, made by C. B. DeBurgh, a warranted pure and genuine article, for sale by
GEO. DAVENPORT,
No. 5 Commercial, corner of Chatham-st., Boston,
Agent for the manufacturer, with directions for use.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.
April 7—14—1t—mtf.

Poudrette!

THE LODI MANUFACTURING CO. have on hand a large quantity of newly made and very superior quality of Poudrette, which they will sell at retail at their usual prices, $1.50 per bbl. for any quantity over seven bbls., delivered free of charge on board of vessel. Persons desirous of purchasing from 2 to 500 bbls. Poudrette for this fall's use, or to lay up for early spring demand, will find it to their advantage to communicate early with THE LODI MANUFACTURING CO., No. 74 Cortland-st., New-York.
July 28—w3m—m3t.

Manures.

PERUVIAN GUANO, 2¼ to 2½ cents per pound.
BONE DUST, when taken in equal quantities, $2 25 per barrel.
BONE SAWINGS, separately, $2.50 per barrel.
PLASTER, $1 to $1.25 per barrel.
POTASH, 3¼ to 4 cents per pound.
CHARCOAL, $1 per barrel.
SULPHURIC ACID. 2¼ to 2½ cents per pound.
SUPERPHOSPHATE OF LIME, 2¼ cents per pound.
WOOD'S RENOVATING SALTS, one cent per pound.

For sale at the State Agricultural Warehouse, No. 25 Cliff-street, New-York. LONGETT & GRIFFING.
Feb. 1—etf.

Railway Horse Powers,

FOR one or two horses—Threshers, Separators and Cleaners—Combined Threshers and Separators, all of the most approved plans, for sale at the STATE AGRICULTURAL WARE HOUSE, No. 25 Cliff-st., New-York.
July 28—w2m—m3t.

United States Agricultural Warehouse and Seedstore

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine—also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, arm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers. Jan 1, 1853—m&wtf

Devon Bull Red Rover for Sale.

RED ROVER is a full blooded North Devon Bull, bred by Geo. Patterson of Maryland; was sired by his superior imported bull Eclipse. His dam was "Venus," an imported cow of Geo Patterson's, sired by Lord Leicester's bull Anchisis. Red Rover was calved June 28th, 1844, and has taken the following premiums:

The 1st premium at Poughkeepsie, as the best bull calf
The 1st " at the American Institute the same year.
The 1st " as the best 1 yr. old, 2 yr. old, 3 yr. old.
The 1st " at the N. Y. State fair in 1847.
The 1st " at the Hartford Co show in 1848.

THOMAS GOULD.
July 1—m3t. Aurora, Cayuga Co., N. Y.

Important to Breeders of Stock.

THE subscriber offers for sale, two thorough bred *Short-Horn* Durham bull-calves—one 20 months old, a beautiful roan celor, splendid proportions, a descendant of the much celebrated "*Belted Will*," of England; the other about two months old—white, of unequalled symmetry and beauty, and is also a descendant of "Belted Will"—his dam was got by "Bellville," the champion of England, Scotland and Ireland, and was imported to this province in 1851, and the first of Mr. Hoppers' celebrated herd ever brought into Canada.—Also, two other calves, of the same unequalled breeding, three weeks old. Satisfactory certificates of pedigree will be furnished. For further particulars, application may be made to RALPH WADE, Spring Cottage,
July 7, 1853.—w1t—m2t. near Port Hope, Canada West.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Suffolk Swine.

PIGS, Breeding Sows and Boars, of the purest blood and finest specimens. To be seen, one of the finest boars in the world. GEO. W. WILSON,
July 28—w1—m2t* Malden, Mass., 4 miles from Boston.

Suffolk.

SUFFOLK and Essex Pigs,

Improved Essex.

PURE BRED, for sale by B. F. KEYES,
July 22—m3t Dedham, Mass.

Fancy Lop-Eared Rabbits.

I HAVE now about ready for delivery, a few pairs of fine English *Fancy Lop-eared Rabbits*, from stock imported by me directly from London and Dublin. Gentlemen, or amateurs, desirous of obtaining fine young stock purely bred, can address GEO. P. BURNHAM,
June, 1853—w3t—m3t. Box 22, P. O., Boston, Mass.

Valuable Farm for Sale.

THE subscriber offers for sale four hundred and fifty acres of land, being a part of his homestead, and comprising two hundred acres of as desirable land as any in Addison county—lying on the main road four miles north of Vergennes on the border of Lake Champlain, and one mile from the Railroad Station. It is under good cultivation, and furnished with commodious buildings. The remaining 250 acres is wood land; a portion of it covered with a heavy growth of hemlock and other valuable timber, and the remainder with the best quality of wood for fuel. The property will be sold together or in parcels. Postpaid inquiries promptly responded to.

ROW'D T. ROBINSON,
Aug. 1—tf. Ferrisburgh, Addison co., Vt.

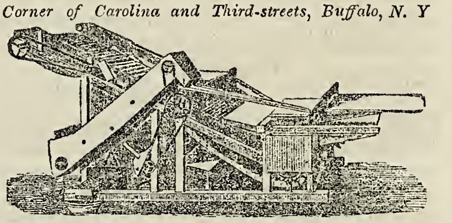
A Virginia Farm For Sale.

PLEASANTLY situated in Fairfax county, 13 miles from Alexandria, 16 miles from Washington, and about 1½ miles from Lee station, on the Alexandria and Orange railroad, a farm of 218 acres, about one-half intervale or bottom land, the residue a gentle swell of upland. It is admirably adapted to grazing, and is well watered with two small streams of never failing water, and is capable of producing excellent crops of corn, wheat, potatoes, grass, &c. The location is healthy, and the markets as good as any in this country. On the premises is a young and thrifty orchard of 125 apple trees, 25 peach trees, pear, cherry trees, &c. Also a timber lot of 20 acres, (hard-wood,) and 50 acres second growth pine, which will yield 40 cords per acre, worth $2 per cord at the railroad, 1½ miles distant. There is a small dwelling house and other buildings on the farm. The fences are tolerable, 2000 new chestnut rails having been added to the fences within two years. Price $10 per acre; one half in hand, the balance in two years. Persons desirous of examining the premises, will call upon ANSEL WHEDON, Agent, near Lee station. For further information, address

A. & O. WHEDON.
March 18—w2—mtf. West Pawlet, Vt.

Agricultural Implement Manufactory,

Corner of Carolina and Third-streets, Buffalo, N. Y



PITTS' PATENT SEPARATOR——IMPROVED DOUBLE PINION HORSE POWER—PITTS' CORN AND COB MILL, &c.

I HEREBY give notice, that since the extension of the Patent right on my machinery for Threshing and cleaning grain, I have removed to Buffalo, N. Y., where I have permanently located, and erected a large establishment for the future manufacture of the above machines.

The Separator has been enlarged, improved, and rendered more permanent and durable in all its parts—while the Horse Power, for strength, ease, durability, and cheapness of repair, is not surpassed by any in the United States. This Power is warranted to stand the full strength of eight horses, also to give as much effective or useful power when driven by one or two horses, as any other Horse Power, whether constructed on the endless chain or lever principle.

It was put on trial at the great exhibition of Horse Powers and Threshing Machines, at Geneva, in July last, 1852, where it received the New-York State Agricultural Society's first premium "*for the best Horse Power for general purposes.*"

The Separator, at the same trial, also received the Society's first premium. My machines will thresh and clean from three to five hundred bushels of wheat per day, and other grain in proportion.

Two hundred of the above machines are for sale at the Agricultural Works of the subscriber, in this city, all warranted to be a better article than can be purchased at any other shop, and if they do not prove on trial to be so, I will take them off the hands of the purchasers, at the price they may pay me for them.

I further notify all persons, who are purchasing Horse Powers and Separators to be used in California or Oregon, that I will hold them accountable for any infringement of the rights secured to me by letters patent in the above machines, as I am manufacturing a Horse Power and Separator expressly designed for that section.

All orders for the above machines, hereafter, addressed to the subscriber, will receive prompt attention.

April 14—1amc6t JOHN A. PITTS, Buffalo, N. Y.

Contents of this Number.

False and Genuine Teachings of Science, ... 265
Starving in the Midst of Plenty,.......... 266
Position of Side-hill Drains, ... 267
Oat Bread—Cattle Gnawing Bones,.... 268
Drouth, Irrigation, and Liquid Manuring............ 269
Root Crops—Value of Manure from Cattle, ... 270
Boughton's Cultivator and Thistle Digger—Farming in Western Pennsylvania, by G. E. H.,............ 271
Cheap Wells,. 272
Royal Ag. Soc. of England—Experiments with Poudrette, by G.,.................... 273
The Common Long White Turnep, by J. T. Andrew, 274
A Cheap Ice House, by J. S. Houghton, ... 275
Salting Hay and Stock, by J. W. Colburn—Deep Plowing, by H. E. Foote, ... 276
Foreign Correspondence—Glass Water Pipes,....... 277
Cheese making from a Small Dairy—Experiments in making Butter—Drying Vegetables for Long Keeping—White Sheep Skins for Door Mats, ... 278
Valuable Receipts—Blackberry Wine—Drinks for Harvest—Cure for Erysipelas—A New Mixture used for Washing Clothes, ... 279
The New Ohio Strawberries—Amateur and Window Gardening,.............................. 280
Suburban Garden and Grounds, ... 281
Evergreen Hedges—Strawberries and their Culture,. 282
The Birch as an Ornamental Tree, by Eli Moore—Cultivation of the Cranberry,................. 283
The Calceolaria—A Valuable Grape—Houghton's Seedling Gooseberry,.......................... 284
South Down Sheep—Product of Half-Blood Ayrshires, by A. D. Arms—Charcoal for Sheep—Feeding Cattle around Stacks, by D. 285
Points of Excellence in Cattle—Fattening Sheep—Kentucky Sheep, ... 286
Improved Essex Pigs—Vicious Cattle—Hoven in Cattle,.............................. 287
Spanish Merino Ewes, by G. W. Campbell—Mr. Cambell's French Buck "Matchless,".......... 288
Notes for the Month.......... 289
Queries for Our Correspondents—Ans. to Inquiries, .. 290

ILLUSTRATIONS.

Position of Drains...... 267
do do 268
Boughton's Cultivator,.. 271
Suburban Garden, ... 281
Black Birch,........... 283
The Calceolaria,....... 284
Essex Boar, ... 287
Spanish Merino Ewes... 288

Fowls at Auction.

Large Sale of Imported Fowls.

S. M. PARKE, Auctioneer, will sell in front of Auction Rooom, No. 6 James street, Albany, on Tuesday, 13th of September, the entire stock of Imported Fowls belonging to a gentleman removing from this country. Comprising—

White, Buff, and Black Shanghai.
do do do Cochin China.
Black and Golden Top-Knots.
Superior Creoles and
Black Spanish Fowls. . .—m ..

Choice Fowls.

GENTLEMEN who may be desirous of procuring the best and largest China Fowls in this country, Cochin China, Black, Brown and Buff Dominique, White Shanghais, all from the best importations now known, can now be supplied by the subscriber. All orders promptly attended to. Address, post paid, GEORGE ANDERSON,
Aug. 4w&—m1t* 56 Schuyler st., Albany, N. Y.

Dorkings!

SPECKLED DORKINGS, for sale, at $10 the half dozen. Any greater or less number at the same rate.
JOHN R. PAGE.
Sennett, N. Y.—August 4—w&m1t*

Suffolk Pigs.

THE subscribers are prepared to receive orders for pure Suffolk Pigs, bred from stock imported in 1848 by the late William Stickney, also by the subscribers in Jan. last. Address, JOSIAH STICKNEY, Boston or Watertown, or
ISAAC STICKNEY, Boston, Mass.
September 1—m6t.

Seed Wheat.

A LARGE assortment of the best varieties of Seed Wheat, among which are the Mediterranean, Hutchinson's and Soule's White Flint, for sale by
GEO. H. BARR & CO.,
Sept. 1—m2t. 53 Cortlandt St., New-York.

Fall Exhibition of the New-York Hort. Society.

THE Society's Fall Exhibition will be held at Niblo's Garden, New-York city, on Tuesday, Wednesday and Thursday, September 20th, 21st, and 22d, 1853. The Committee would call attention to a very liberal list of awards; and to afford encouragement to those who live without the city, they will pay the freight on all articles sent from a distance. By order of the Committee of Arrangements.
33—5t.—m1t. PETER B. MEAD, Chairman.

New-York Agricultural Warehouse.

HORSE Powers, Threshers, Fan Mills, Smut Machines, Grain Drills, Hay Presses, Grain Mills, Corn and Cob Crushers, Cider Mills, and a large assortment of Plows and all kinds of Agricultural and Horticultural Implements.

Peruvian Guano, Super-phosphate of Lime, Bone Dust and other fertilizers of the most superior kinds.
R. L. ALLEN.
Aug. 18—w mtf. 189 & 191 Water-st., New-York.

Superior Seed Wheat.

A LARGE assortment of the best varieties of improved Seed Wheat, among which are the Golden Australian, China or Troye, White Flint, Hutchinson's Improved, Soule and Mediterranean.

Seed Rye of the best winter variety; also a cheaper kind, suitable for late fall and early spring pastures.

Field and Garden Seeds of the various sorts.
R. L. ALLEN,
Aug. 18—w mtf. 189 & 191 Water-st., New-York.

Horse Powers,

ON the Endless Chain Principle, from the best manufacturers—Emery's, Wheeler's, and White & Prentiss.

THRASHERS AND SEPARATORS.—Thrashers, Separators, and Winnowers combined.

The above are warranted to give satisfaction. For sale at the lowest cash prices, at the State Agricultural Warehouse.
LONGETT & GRIFFING,
Aug. 18—w8t—m2t 25 Cliff-street, New-York.

Horse Powers, Threshers, &c.

RAILWAY Powers of Wheeler's and other manufacture, for one and two horses.

THRESHERS—With and without Separators.

FANNING MILLS, CORN SHELLERS, and STRAW CUTTERS of the most approved kinds, for sale by
GEO. H. BARR & CO.,
Sept. 1—m2t. 53 Cortlandt St., New-York.

Spanish Merino Bucks.

THE subscriber offers for sale several Spanish Merino Buck Lambs. These sheep are supposed to be excelled by none in the state, and are pronounced by judges from different sections of the country to be superior stock. They are justly celebrated for weight and fineness of fleece, and perfect hardiness of constitution. Prices from $10 to $15 per head. LEVI S. WELLS,
Aug. 11—w4t—m2t. New Britain, Hartford Co., Ct.

Albany Drain Tile Works,

No. 60 Lancaster Street, Albany, West of Medical College.

THE subscriber, successor to JOHN GOTT, formerly A. S. BABCOCK & CO., is prepared to furnish Draining Tile of both Horse Shoe and Sole patterns, at from $12 to $18 per 1000 pieces. The tile are more than a foot in length, and fully equal to any of American or Foreign manufacture. They are so formed as to admit water at every joint, and drain the land perfectly from 12 to 20 feet on each side, according to the nature of the soil.

Also, Large Tile for drains about dwellings, yards, &c., at from $4 to $8 per 100 pieces. These are cheaper and more durable than brick drains.

Full directions for preparing ditches, laying tile, &c., will be sent free to those addressing the subscriber, post-paid, The tiles can be sent safely any distance. Orders are respectfully solicited. DAVID CALLANAN.
August 4—31—12t—m2t. Albany, N. Y.

THE CULTIVATOR:

A MONTHLY JOURNAL OF

Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 CENTS A YEAR.

All subscriptions must commence with the January No., and the payments must in all cases accompany the order for the paper. LUTHER TUCKER,
Publisher, Albany, N Y.

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES.

Vol. I. ALBANY, OCTOBER, 1853. No. X.

Agricultural Machinery.

NOTHING is more worthy the attention of agriculturists than the improvement of the implements and machinery of the farm. A tool that is often used should be of the very best construction, even at an additional cost. It is quite a consideration to a laborer who does fifty days' work at hoeing in a season, if by the use of a perfect tool, costing fifty cents more, he can do this work as easily in forty days, and save ten days of labor. The farmer who throws aside his four-dollar plow, and by purchasing one at eight dollars is enabled to save for his team in five years, one-fourth of a hundred days' plowing each, or one hundred and twenty-five days in all, makes an investment with his extra four dollars far exceeding that in any bank, railway, or gold-digging company.

If the thing were possible, a most interesting and novel exhibition might be made at a State Fair,—more convincing than anything else could be, of the great progress of modern agriculture,—by presenting a collection of all the implements, such as were used in this state in the year 1800, alongside the numerous and finished machines of 1853. All the premium cast plows, with their gracefully curved and polished moldboards—the subsoilers, the deep tillers, and cast-steel plated implements, would be represented by the old square-faced "bull plow;" the threshing machines, in all their modifications, by the swing-flail; the most improved fanning mills and separators, by the wheat-riddle; wheat drills, gang plows, and wheel cultivators, by a shouldered bag of grain, and a forked harrow; revolving horse rakes, mowing and reaping machines, by the hand rake, scythe and sickle, &c. The implements of 1800 would not load a horse-cart; those of 1853, with their various forms, would freight a steamboat or long train of rail-cars. The State Agricultural Museum should, if possible, preserve specimens of these relics of fifty years ago.

And yet, in many particulars, the improvement of farm implements is yet in its infancy. The most finished cast-steel plow of the present day, perfect as it may seem, consumes five-sixths of the moving force to overcome friction and cohesion. For, in ordinary work, a horse will do the same as lifting 700 lbs. seven inches high per second; while a good two-horse plow, in turning the soil, lifts only about 200 lbs. of the earth seven inches high on an average, per second. Here is an opportunity for inventors to exercise their ingenuity, in overcoming this 500 per cent. of cohesion and friction.

The English agriculturists have been lately much occupied in endeavoring to devise some other way of loosening and pulverizing the soil, besides plowing. They have not yet been very successful, although some of their newly introduced machines, in connection with the plow, have accomplished wonders. The two most efficient of these are perhaps Croskill's Clod-crusher and the Norwegian Harrow, both of which we described some months ago, and which might be introduced into our clayey districts with great probable advantage. A recent number of the English Agricultural Gazette described a new *digging machine*, which has lately been tried with some success. It is rather a forking than a digging machine, acting by prongs, not by cutting flat surfaces and edges. Drawn by six horses, it pulverized the soil of a field, consisting of a friable loam plowed the previous autumn, so that in walking over it the feet sank three inches, and a stick could be thrust down eight or nine inches. Every circle of its twelve teeth, revolved on a separate rowel, of which there were seven, six inches apart, strung upon one axle. The rowels consisted of heavy cylindric blocks of iron, one foot in diameter, and four or five inches wide, from whose surfaces project teeth ten or twelve inches long, curved in such a manner as to enter the earth perpendicularly as the machine revolves. Between the blocks are heavy washers, which keep them asunder, and facilitate the motion and cleansing of the whole. Such a machine as this may in some cases pulverize the earth more perfectly than the plow and harrow, but otherwise appears to possess no advantage on the score of economy or expedition; for the six horses required to draw it, pulverize a strip only three and a half feet wide, and get over only about four acres a day; an amount easily plowed and harrowed by the teams separately. Still, however, it is not altogether impossible that such a machine may be the germ of something fitted to a single two-horse team, and working the earth more economically or more efficiently than the common plow. In this respect an important step may have been taken.

More recently, we observe a notice of a new subsoil plow, lately invented in the north of England, which certainly proposes to accomplish wonders. In the first place, it "skims the surface;" secondly, trenches the land; thirdly, subsoils the ground to any required depth; fourthly, it will perform either of these operations combined or separately; fifthly, it requires no skill in holding, and no "balks" can ever be made; sixthly, it buries all vegetable matter and weeds; seventhly, it may be used on land wet or dry; and eighthly, it trenches land at one quarter of the ordinary expense by hand. This plow appears not to have been tried as yet, although commended by an English agricultural journal of high character; but we confess so many wonderful qualities partake largely of the marvellous, and remind us of the extraordinary quack medicine, which not only cured the different diseases, but possessed many other very useful properties, such as restoring a rent boot, doubling the milk of cows, causing hens to lay with great rapidity, preventing decay in fence posts, preventing horses from balking, rendering railroads proof against collisions, making steamboat boilers safe from explosion, besides increasing the speed of the boat, &c.

Another attempt, not so successful as this claims to be, was made some years ago, at the Bristol exhibition of the English Agricultural Society, of a digging machine, constructed simply of a wooden roller set spirally with spoon-shaped spikes, so as to dig up the land when drawn over it. Unfortunately, the first trial was made on the fair ground, and instead of digging, it gathered soil among the teeth as it proceeded, till the whole became an immense cylindrical mass of earth, in which the teeth were buried and hidden. That, of course, ended the history of this digger.

Thousands of very ingenious men have labored for years in improving the old-fashioned soil-inverter, the plow; and possibly nothing better than this implement will ever be contrived; but ingenuity in other diections is certainly worthy of encouragement. At the present time, a trenching machine is greatly needed, that shall not require six or eight horses, as the largest subsoil and trench plows now do, but where one or two horses may be set to work and turn up the subsoil and throw under the surface, with all the perfection of finish accomplished by hand labor, and with one quarter of the expense.

Second Growth of Timber.

Experience has proved the most profitable way of managing forests to be the complete cutting off of all trees, so far as the clearing goes, and allowing the new growth to come up evenly and all together. But it has become an important question when to cut off this second growth, so as to afford the most rapid returns. The Salisbury Iron Company has several thousand acres of land, reserved exclusively for supplying their own charcoal. From the experience of sixty years, they have ascertained the most profitable period for cutting to be once in about sixteen years. It has been found that this yielded equal to an annual interest on $16 to $20 per acre, in a rough and not rich soil, remote from a wood or timber market.

How to have Plenty of Water.

Pure, clear water, forming, as it does, at the same moment, both the emblem and embodiment of refreshment and comfort, is looked upon as a vital element of satisfactory existence, by all who hate dirt, parched lips, dusty lungs, stratified deposits on the skin, and parti-colored linen. It also forms a most agreeable class of pictures for the eye, in the form of placid sheets, bubbling brooks, sprinkling jets, and flashing fountains; and through the ear, it gives us the music of cascades, the thunder of cataracts, and the grave roar of ocean surges.

It is no wonder that all are ready to labor for and welcome so agreeable a companion. The large cities have brought it many miles in hewn masonry, at a cost of millions, that they may syringe their streets, feed their baths, and keep a ready antidote for the incipient conflagration. The country resident longs for the termination of the parching drouth, when drenching rains shall fill his cisterns, replenish his failing well, and set the brooks in motion. Many are looking with envy at some rare and "lucky" neighbor, who happens to have an unfailing spring; and others, as we have often witnessed, placing the water hogshead on the ox-sled, proceed to drag their needed supply from a distance of one to three miles, as the case may be, and as they can get it from the pond, creek, or some better-supplied risident. We have positively seen a wealthy farmer drawing rain water a mile, after having allowed five times the amount he ever would have needed to run to waste immediately before his eyes; and we venture to assert that not one farmer in a hundred who has suffered from a want of water during the present year's severe drouth, has not committed a similar waste, though perhaps sometimes less in degree.

The great mass of country residents seem to have no more conception of the enormous floods of clear, pure rain water, that annually pour off of the roofs of their dwellings, wood-houses, barns, sheds, and other outbuildings, than if they had never heard of such a huge watering-pot as the clouds in the sky. If all the rain which falls in the northern states within a year, should remain upon the surface of the earth without sinking into it or running off, it would form an average depth of water of about three feet. In the southern states, it would be more; within the American tropics, it would amount to about ten feet; and near Bombay, in Asia, to twenty-five feet.

Every inch of rain that falls on a roof, yields two barrels for each space ten feet square; and seventy-two barrels are yielded by the annual rain in this climate, on a similar surface. A barn thirty by forty feet, yields annually 864 barrels—that is, enough *for more than two barrels a day*, for every day in the year. Many of our medium landholders have, however, at least five times that amount of roofing on their farmeries and dwellings, yielding annually more than four thousand barrels of rain water, or about *twelve barrels or one hundred and fifty ordinary pailfuls, daily.* A very small portion of this great quantity is caught in the puny and contemptible cisterns and tubs placed to catch it; but full-sized, capacious reservoirs, fit to hold this downward deluge, we know not where to find, even in a single instance!

It is true, that where a constant draught is made on a cistern, it need not hold the full year's supply—even one-sixth part, will, in general, answer, as the variations in the wet and dry seasons do not often amount to more than the rain of two months. But allowing all this, where shall we find a cistern for a thirty-by-forty-feet barn that holds this sixth, or 170 barrels? Or one proportionately large, for a broader roof?

Now what would the large supply of water from sufficient cisterns enable the farmer to do? or rather, what might he *not* do with it?

1. In the first place, all the cattle on a farm well furnished with buildings, might obtain all the water needed for their daily use.

2. Or, if instead, the usual proportion were supplied them by streams and wells, a large upper cistern would furnish all the conveniences of showering, washing, and sweeping off feculent matter, which are derived in cities from pipes and hydrants.

3. Or, if large cisterns were placed in the upper part of the farm-buildings (where the space they would occupy would be of little comparative value,) they would supply a fountain one-fourth of an inch in diameter, spouting fifteen feet high, for two hours every summer afternoon—the cisterns being unoccupied in winter.

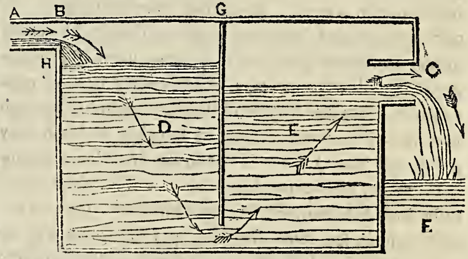
4. In addition to supplying the fountain, they would keep up the water in a pond at the foot of the fountain, thirty feet in diameter, (or with equal surface,) and allow eight barrels to flow off daily for watering cattle or for other purposes, during the hottest evaporating days of summer.

Tanks for Liquid Manure.

Intelligent farmers are becoming well acquainted with the fact that under the ordinary management of manures, or rather want of management, a loss of fifty per cent or more occurs by the waste of the liquid portions, and by the washing of rains. As a consequence, much ingenuity has been exercised, and much labor performed, to save and apply it. Tanks, or large water-tight underground cisterns, have been built, into which all the drainage of manure is directed. When full, some have pumped the contents back on their manure or compost heaps; others have pumped them into water casks, and conveyed them directly to the growing crops. Others again, have filled their tanks with dried peat, charcoal, &c., and when these are saturated the whole is thrown out and used as manure, and fresh portions again deposited. A more common, but less perfect, although easier way, is to keep the stables well littered with straw, and trust to its absorption of the liquids.

These all have their disadvantages. Carting out the liquid manure in water-carts, is altogether too expensive for ordinary farm crops—for although pumping and throwing from pipes is easier than shovelling the solid material, and the finely divided fertilizer penetrates the soil to great advantage, yet the many tons of water required to be drawn out in order to get one ton of solid material, overbalances all the advantages. Pumping the contents back on the compost heap is far better, especially if there is a large amount of turf and loam to absorb the rich parts. Filling the tank with absorbents saves all, but wastes labor, as these solid materials soon become loaded and heavy with water, for the small portion which they hold in solution, and all this weight of water must be shovelled out every time the cistern is filled, which is absolutely out of the question for common practice.

We observe by the English papers that a decided improvement has been made on all these plans, by Lady Frankland Russell, near Thirsk. It has been applied on a large scale to drains or sewers, and possesses the peculiar advantage of retaining all the enriching materials, and suffering the water in a pure and transparent form to escape; and may, of course, be as well applied to the dralnage of the barn-yard. The following is a section of the arrangement.



The arrows show the course of the liquid current; the first tank, D, is filled with clay, turf, or loam, a large portion of clay being desirable; and the second tank, E, with charcoal dust. The liquid finds its way through these substances by the force of gravity, and by capillary attraction. Two sets of these tanks are placed at the foot of each sewer or drain, and as soon as the water ceases to flow pure from the first, it is immedidiately turned into the second, while the contents of the first are removed. The great advantage of this plan is, that the valuable parts of the liquid are absorbed, and many times concentrated, instead of being dissipated through a vast bulk of water, while the operation of pumping up all this water, as in the mode before mentioned, is entirely avoided.

Should such a plan as this be adopted to any extent on a farm, it would be an economical arrangement, and save some cartage, to carry the drainage as near as practicable to the place where most of the manure would be used, before passing into the tanks; and also to place them, if possible, on a hill-side, where the soil or turf could be easily dumped into them from a cart, and taken out into the cart below, when saturated. If charcoal cannot be had, both tanks may be filled with earth. Dried peat will absorb much liquid, but its absorption is *mechanical*, not *chemical* like clay, and hence when saturated, the water will not flow off pure.

◆

☞ In Sussex county, Delaware, a young cow, one year old, is giving milk of an excellent quality.

Green Manuring.

I have a piece of land that needs enriching, but this I cannot do for it, except at too great an expense—that is, by drawing manure from Buffalo, nine miles by pland road. The land referred to was seeded with grass last spring, and it looks well; and there will from present appearances, be a fair crop of timothy and clover next season. I propose about the 20th of June next, to mow the grass and spread it over the ground, and leave it to decay, and leave what comes up afterward the same season to rot on the land. Will this be a good way to bring up the land? C. S. *East Hamburgh, Erie co., N. Y., Aug.* 8, 1853.

We would not by any means recommend the exposure of the crop of grass the whole season to the elements, although we have no doubt that much enriching material would thus be afforded, when plowed under in autumn. Plowing under at once would better promote decay and decomposition, and prevent the dissipation of a valuable portion of the crop of grass. Several successive crops of green manure are always best for poor land, but it is generally most convenient to turn in but one in a season, preceding some farm crop. If our correspondent, however, wishes to obtain the benefit of two successive growths in one year, we would recommend the following course: In the early part of next summer, when his clover and timothy begin to approach maturity, (for much is lost by burying it when very green and juicy,) throw it flat in the direction the plow is to move, by means of a roller; or if a roller is not to be had, by means of a common harrow—then let the plow run in the same direction, and the grass will be mostly buried. A short piece of heavy chain, dragging from the upper part of the coulter, in the furrow, and the other end fastened to the right handle, will greatly assist in sweeping the grass from the mold-board so as to be more completely buried. If it is desired to turn under a second green crop the same year, this plowing should if possible, be done to a depth of ten to twelve inches, by means of that incomparable implement, the double Michigan plow; immediately after which a crop of buckwheat or Indian corn should be sown upon the fresh soil. This will grow, and may in its turn be buried with a shallow furrow in the same way, by mid-autumn, or sooner. In this way the soil will be well filled with two different strata of vegetable manure, at different depths, and will be greatly improved in productiveness by another year. If the corn is sown in drills about 20 inches apart, so that each drill, after rolling down, may be plowed under by every second furrow, it will be found that it can be more effectually buried, and there will be less waste of seed than if sown broadcast. Two bushels to the acre should be used.

If a dressing of lime could be applied about the time, or a little before the green crop is plowed under, it would be more useful than at any other time, and in many cases would be of much benefit.

The great advantage derived from green manuring, is the material which the growing coat of manure derives from the air and water of the soil; for although the soil itself is in some degree exhausted by every crop of plants, yet, by plowing the whole under, all that is taken from the soil is returned, together with all that is obtained from air and moisture. Broad or round leaved plants are found to get a larger proportion of their growth from the air, than those like wheat and grass, with narrow leaves; hence such should be chosen for green manuring. Nothing has yet been found in this country equal to a crop of red clover for this purpose. We greatly need a series of accurate experiments on the different crops adapted to green manuring.

◆

Underdraining.

A correspondent (V. W. H., Trexlertown, Pa.) who has never seen any underdraining, wishes to try an experiment on a piece of meadow lying on both sides of a small creek—the ground gravelly, and generally too wet to bring good grass—and he desires practical directions how to perform the work.

We can only give, at present, very brief hints on the subject, as to treat it in full would require a volume. Cut the drains as narrow as the workman can stand in them, and at least three feet deep—let them run directly down the hill, so as to give rapid descent, which is especially necessary in gravelly subsoil; for if laid obliquely they will leak, and be comparatively of little use. As tile cannot probably be had by our correspondent, the drains may be filled with stone or with brush, as may be most convenient, the former being most durable, the latter more easily constructed. If much water flows in the ditch, and the descent is moderate, a free channel must be made for the water by placing a row of stones on each side of the ditch's bottom, leaving a space of two or three inches between; across both of these rows flat stones are laid, forming a covered channel. If flat stones cannot be had, hard or durable slabs will answer, but they will ultimately decay. The ditch is then partly filled with small stones, none being admitted half the breadth of the ditch; on these straw or inverted turf is deposited, and the rest of the space filled with the removed earth. But there are several precautions to be observed, or the earth will soon fall in among the stones. If the soil is clayey much less care will be needed, however, than with lighter soils, those approaching the character of quicksands being most of all difficult to manage and control. The precautions are, to place the smallest stones at the top, and flat stones, if to be had, to close all cavities; and if the soil has little clay in it, to cover these stones with a layer of slabs, before placing on the inverted sods or straw. Also, if the soil is light or gravelly, a smaller portion of the ditch must be filled with stones, than if much clayey; because the water will find its way down through the former more readily, at the same time that the less tenacious soil will be more apt to fall in among the stones if they are near the surface. In either case, an abundant depth of soil must be allowed for plowing freely over the drain.

When the streams are not copious, we are inclined to prefer, decidedly, the construction of *brush* drains, in all places where plenty of brush can be obtained; and these are more especially suited for the use of such as may have had little experience in underdraining, as they require but little skill. The ditches are cut in the same way as for stone or tile, and are filled with brush by commencing with the upper end and placing the buts downwards and the tops upwards, and so proceeding down the ditch by depositing an even layer so as to fill it, the tops being thus left on the surface, and the buts resting on the earth. When pressed down, they will fill about one-third or one-half of the ditch; they are then covered with inverted turf, and the ditch completed by refilling with earth. Brush drains will last many years, the brush being excluded from the air and decay; they are less liable to obstruction from the falling of the earth than stone drains; and the water will always find ready channels among the branches for flowing off.

A rapid mode of refilling with earth consists in throwing it in with a common two-horse plow, a long whiffle-tree being used, so that the horses may walk on either side of the ditch. This will be assisted by a tool made of two plank fastened together in the form of the letter V, and drawn open end forward, throwing the earth towards the center and into the ditch. The digging may be facilitated by plowing a wide double furrow where each one is intended to be cut; and if this is done with the Double Michigan plow, about one-third of the depth will be excavated by the operation.

Where the whole surface of the field is too wet, the drains should be cut at regular intervals of about three rods apart—if the soil is heavy, nearer. If only portions of the field are wet, the drains should pass through those portions and be furnished with such side branches as may appear necessary—remembering always to give them as much descent as may be practicable. It should not be forgotten that a great deal of land that appears quite dry would be greatly benefitted by thorough underdraining, as has been actually proved in repeated instances. *Draining often proves one of the best securities against drouth,* by preventing the soil from becoming packed together when wet, and baking hard by drying; it renders it porous and friable, and highly retentive of moisture in drouth.

Removing Suckers from Corn.

A. Yeomans of Columbia, Ct., makes some suggestions and inquiries relative to stripping the suckers, and the false or abortive stalks, from corn for green fodder, and states that experience proves that their removal is injurious to the crop. The reason is asked for this result.

We know of no accurate experiments on this subject, but if the crop is lessened by stripping off the suckers, it must be, that by reducing the leaves which furnish nourishment to the roots, a check is given to the roots and to the whole plant. A result precisely similar to this occurs in the case of severe summer pruning given to some kinds of fruit trees—the sudden check given to the whole plant by removing so large a portion of its breathing organs, often proving highly detrimental to growth. Skillful pruners avoid this injurious consequence, by pinching off the ends of useless shoots or branches before they have attained a disproportionate size, which directs the growth into other parts, and avoids the necessity of lopping off large portions after they have accomplished their growth. It would be an interesting experiment to try the same treatment on corn, by removing the suckers when *first forming*, and observing the result. Will not our correspondent give this subject an accurate test by experiment, in the following manner?—Leave the first row untouched; strip the suckers from the second when just forming; and strip the third row at the usual time for fodder; and then weigh the whole crop of stalks, and the whole product of corn from each row. To make the experiment certain, and independent of accidental causes, let several successive triple rows be taken.

The suggestion of our correspondent, that the suckers are the only stalks that contain fertilizing pollen, and that the pollen from the other stalks is worthless or abortive, cannot be correct, unless the removal of the suckers is always performed before the dust falls from the tassels, which is not the case; and unless, in addition to this, the cobs are left unfilled with grains. The tassels bear the staminate flowers, and the ears constitute the pistillate flowers, and we know of no reason why the pollen from fully grown, well developed stalks, should not be as perfect as that from the more imperfectly developed suckers.

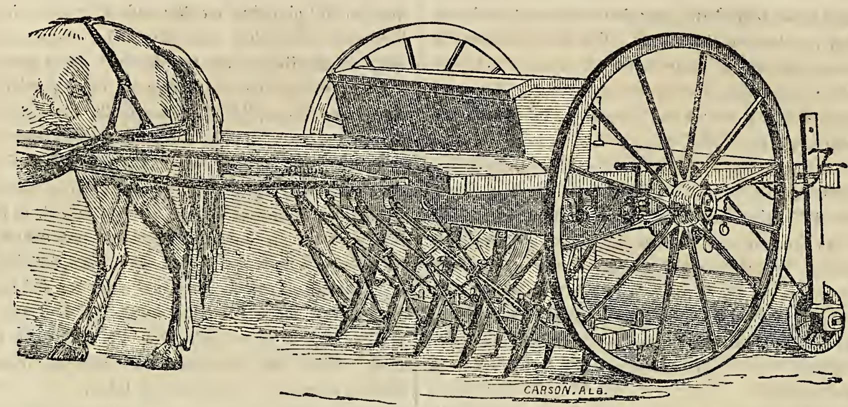
Red Clover Sown in the Fall.

Messrs. Editors—It is asserted in the last number of your paper, that red clover does not do well sowed in the fall in our northern climate. A Mr. Taylor of this place sowed red clover seed in September, with wheat, during several of the past years. This he has done on the same ground at least for three years in succession. He says the wheat crop of the third year was the largest, indicating a decided improvement in the soil, which is a dry sandy loam, lying on the banks of the Seneca lake. The clover was of large full growth, on the ast of August, when it was plowed under and sowed immediately with wheat and clover. The amount of land was one acre- on which was sown one peck of clover seed and 1½ bushels of wheat. Average yield of wheat, upwards of twenty bushels annually. On a different soil it might not succeed, but on a dry, warm soil, if sowed the last of August or the first of September, we think it would. Yours truly, S. B. Buckley. *West Dresden, N. Y., August* 8, 1853.

Important Discovery,

To Save Wheat from the Wheat Worm.

L. Tucker, Esq.—As the Wheat Worm does not attack Rye, it has been shown by experiment, that if a belt of Rye is sown all around the wheat field, the fly does not find the wheat to deposit its egg. Mr. O Smyley, of Princetown, has sown *two* broad-casts of Rye, all round his Wheat-field, *for the last four years*, and the Wheat has completely escaped from the insect. Perhaps one cast of Rye might be sufficient to protect the Wheat. David Tomlinson. *Schenectady, August*, 1853.



Beebe's Patent Grain Drill and Corn Planter.

We give above a cut of this machine, which has been tested the past season, and found to work satisfactorily. It combines the power of drilling the land, dropping or distributing the grain evenly in drills, covering the seed, and finally rolling the surface; or rather it does all these at once. The machine is very compact, simple in its construction, and of easy draft. The two horse drill is six and a half feet in width, and has nine drills at equal distances. In planting corn, only three drills are used, being three feet apart. The distributing roller is so arranged that by means of a screw the number of kernels of corn dropped may be regulated at pleasure, and also in drilling any other kind of grain, the quantity may be varied in the same way. The box on the platform of the machine is capable of holding three or four bushels of grain, and the platform in the rear may also be used advantageously for carrying extra bags of grain. The gearing of the machine and the action of the distributing roller, do not differ essentially from the best seed drills now in use. The drills are, however, so arranged that they can easily be shifted to make the required depth of furrow; their angle of inclination may also be changed at pleasure, and each drill is independent of the rest.

In the rear of the axle is a harrow, the teeth of which, following at the distance of about two inches from the drill furrow, completely cover the grain. The roller, which is divided into two sections, for convenience in turning, finishes the work. The harrow and roller may be detached, and the drill used alone. The one horse drill has only five drills, at the same distance apart as the large drill. They can be built of any required size to suit purchasers. The price of the two horse drill is $100. The one horse drill $80.

Messrs. Beebe and Wormer of this city are prepared to receive orders, and will exhibit the machine at the State Fair, and at the Albany County Fair.

◆

Value of the Turnep Crop.—In England, where the humid climate is more favorable than ours to this crop, and where the mild winters save much labor in securing it from frost, its annual value is estimated to exceed a hundred million dollars.

Experiments with Charcoal.

We have been favored with the following extract from the forthcoming Report of the Survey of Essex County, by W. C. Watson, Esq., which will be read with interest:

Enormous masses of dust or debris of the charcoal, accumulate about the iron works of the county, and create incumbrances and deformities. It has been annually spread in vast quantities along the highways, constituting an admirable material for roads. An incalculable amount has been cast into the streams. The attention of men of observation and sagacity has been, within a few years, drawn to the use of this ingredient as a fertilizer. Experience has established its exceeding utility. In the midst of the disastrous drouth of last summer, while crossing a field in Moriah, occupied by Mr. Richmond, in pursuit of some Durham cattle I wished to examine, I observed a lot with its surface deeply and singularly blackened. Upon inspection I found it thickly strewn with pulveriezd charcoal. The field presented a rich verdure, strongly contrasting with the parched and blighted aspect of the adjacent country.

The following detail of this experiment, supplied at my request, attests the value of this material as a fertilizing principle. "The soil is loamy. The charcoal was applied on four acres of dry land, and one acre of moist soil, by top-dressing. The amount used was about one thousand bushels to the acre, spread on so as to make the surface look black, but not to incumber or obstruct vegetation. It was applied in September and October, 1850, at an expense by contract, of forty dollars. It was procured at a furnace, from a mass of pulverised charcoal left as useless, and was drawn one mile and a half. The effect was immediate. The grass freshened, and continued green and luxuriant after the surrounding fields were blackened by the early frosts. Although the last season had been so unfavorable for vegetation, Mr. Richmond realized one-third more than the ordinary yield of hay, and sufficient to repay the whole outlay. He thinks that he cut nearly double the quantity of grass upon this lot, that he did upon any similar meadow on his farm, and that the quantity of the hay is improved."

The Hon. J. S. Whallon has made the most decisive and valuable experiments on this subject. His operations were extended through several seasons, and were observed with great intelligence and discrimination. The result amply sustains the conclusions derived from the preceding experiment. I may add that a similar application has been made under Mr. Whallon's supervison, upon another tract in Elizabethtown on a soil of lighter texture and with entire success. In this instance the charcoal was applied chiefly to a crop of oats. The action of this substance seems to be effected by its physical combinations and its chemical affinities. It attracts the rays of the sun and unites with the fertilizing gasses of the atmosphere; it absorbs moisture, and combines as a new constituent in the formation of the soil. Almost imperishable, it must remain indefinitely, with no exhaustion of its properties, a perpetual invigorating agent in the earth.

The succeeding extract from a communication of Mr. Whallon, elucidates his experiments and views on this very important subject: "I began the use of it in the year 1846, and first employed it as a top-dressing on a strong clay soil, which was plowed in the fall of 1845. I spread on about fifteen wagon loads of the dust to the acre, after the wheat had been sowed and harrowed one way. I was surprised to find my crop a heavy one, compared with my neighbor's, raised on the same kind of land. The wheat was of better quality and yielded four or five bushels extra to the acre. I have since used it on similar land, sometimes mixed with barn-yard manure, and sometimes alone, but always as a top-dressing, usually on land seeded for meadow. The results were always the most favorable. I find my land, thus seeded, produces more than an average crop of hay and always of the finest quality.

"I have also used the dust on loamy and interval land, with the potato crop. During the series of years in which the rot almost ruined the potato crop, I scarcely lost any potatoes from that cause, and supposed it was owing to the coal dust I used. My manner has been to drop the seed and cover it with a small shovel-full of the dust, and then cover with earth. In this way I have used all the coal dust I have been able to save from the coal consumed in a forge of five fires, and which amounts to about 250 loads per year."

In the colder regions of the Adriondacs, charcoal dust has been used with great advantage. The note of Mr. Ralph presents the experiment in the following language: "As a top-dressing for meadows, charcoal dust and the accumulation of ashes and burnt earth left on old charcoal pit bottoms have been used here with remarkable results, and I judge from the trials which have been made, that this application has added at least one-third to the hay crop, where it has been used. It was remarked during the past very dry season, when vegetation was almost burnt up by the long continued drouth, that those fields which had been dressed with this substance were easily distinguished by the rich green color of their herbage."

Time to Sow Plaster.

The question was asked in the May or June number of The Cultivator, what is the best time in the year to sow plaster? It is an important question, because thousands of dollars are expended annually for plaster, and if not used at the best time much is of course lost. I like the suggestion of A. K. Barrett, in the July number, but would like to hear more, and from others. I have had some experience in the use of it, and have seen great benefit derived from using it on clover meadows, immediately after haying. It starts the clover up, so that the ground, roots and all, does dot get parched, or scorched I may say, which injures both land and grass. Our dry and scorching weather nearly always comes during the month of August. I have tried plaster on corn when it *first came up* this year for the first; then another light coating after the last hoeing, and I think it will pay well. I have formerly used it only after the last hoeing, but I believe corn requires a *stimulus* while *young*.

The question has been asked, (but not answered to the satisfaction of all,) Is plaster a stimulus only? I would ask it again, for the purpose of getting more information. Some farmers around here sow plaster while the dew is on, or after a shower, so that it will stick to the grass; but that does not suit my fancy. They contend that the sole use of plaster is to retain moisture, which is gradually absorbed by the plants, but that is not the case. Plaster is the sulphate of lime, which has a strong affinity for ammonia, one of the principal ingredients of plants, and which is infused largely in the atmosphere. This the rain, dew and snow brings to the earth, but it is dispelled again by the sun unless retained by some chemical agent. The earth absorbs some, and plants some, but the largest proportion is lost. Now plaster is that agent which absorbs large quantities of ammonia, and gives it off to the plants through the day, then receives another quantity at night. This, I contend, is the true object of plaster.

I would like to ask through the Cultivator, how newly seeded meadows can be kept from drying up the first summer after seeding? My land is a light loam; the seed comes up well, but does not get rooted sufficiently before the dry weather comes and kills it. I usually seed with oats as early as it will do to plow in the spring, and put on eight quarts of timothy and six pounds of clover to the acre. My land will produce good rye. Will it do to seed early in the fall? I would like an answer soon. W. *Oswego, July* 22, 1853.

To Prevent Injury from Ground Mice.

Messrs. Editors—In your Cultivator for this month the inquiry is made for a method of destroying ground mice. The only method I can suggest is to pull their teeth out. But to prevent them from destroying hedges, I have found by trenching the rows, and throwing the dirt up to the trees, say six or eight inches high, in the fall, is, or has been, a perfect protection; and furthermore, I have found that the operation promoted the growth of the hedge. In the same operation with fruit trees, the same results may be realised. Henry White. *Utica, July*, 1853.

P. S.—I have practiced the above prescription for some two or three years, on my farm in Whitestown, where I am rearing a pear orchard of some four hundred trees, surrounded with a hawthorn hedge, very promising.

ANDERSON Sc.

MOUNT FORDHAM, THE RESIDENCE OF LEWIS G. MORRIS, ESQ.

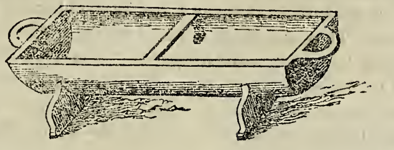
Visit to Mount Fordham.

A recent visit to the fine country residence and grazing farm of Lewis G. Morris, Esq., the President of our State Agricultural Society, afforded us the high gratification of seeing not only the herds of beautiful and high bred animals, for which this place has become so celebrated, but the many conveniences and elegancies which are connected with the homestead. It is situated about ten miles north of New-York city, on a high ridge of land, sloping with undulations towards the Harlem railway about a mile on the east, and descending abrubtly at the west to the Harlem river, which at this place is nearly half a mile wide, and lies about a hundred and fifty feet below, in a valley with steep and wooded sides. The smooth and polished artificial landscape immediately about the mansion, in contrast with the huge masses of rocks which on more remote parts of the farm occasionally line the slopes, combine in rendering this spot one of great picturesque beauty.

It is very rare that so large a number and so great a variety of high bred animals are to be found on a single farm. The Durham and Devon cattle, the Southdown sheep, and the Suffolk, Essex, and Berkshire swine, were of the highest character. That our readers may be able to form an estimate on this subject, we will state briefly their number and origin. Of seventy-five pure bred cattle, about fifty are Durhams or short-horns, and twenty-five Devons. There are three imported short-horn bulls—Balco, a four-year red bull, bred by the celebrated Thomas Bates, designated in the British Herd-Book as No. 9,918; Romeo, a roan bull, bred by the Marquis of Exeter; and Marquis of Carabus, a two-year bull, bred by F. H. Hawkes of Farnley Hall, Yorkshire. There are also ten imported short-horn cows, selected from the herds of Thomas Bates; J. S. Tanqueray of Brent Lodge, Middlesex; H. N. Hill, Berrington, Shrewsbury; Harvey Combe, Cobham Park, Surrey; J. Emerson, Eryholme; and —— Fowle, North Allerton. We mention these different sources to show the eminent advantage possessed in this respect, of crossing without too close a breeding in-and-in. The last importation of short-horns belong jointly to L. G. Morris and N. J. Becar of Smithtown, L. I. There are of imported Devons, one bull and four cows. There are about forty beautiful Southdown sheep, the whole being obtained or bred from the flock of the celebrated Jonas Webb, of which about twenty are imported, and the residue raised from them. A Southdown ram, of extraordinary excellence and superlative beauty, was obtained there the present season, before the annual letting, and was selected as the best one in the flock.

The excellence of the Suffolk (or Windsor) breed of swine, and the probability of their becoming general favorites, led us to regard the fine specimens on this place with great interest. We found about 25 beautiful animals, and learned that they had been procured from three distinct sources, namely, from Earl Ducie, Lord Radnor, and —— Crisp, of Suffolk; thus securing all the advantages of crossing possessed in case of the short-horn cattle. In addition to these, there were eleven specimens of pure blood Berkshires, (five imported) consisting of two distinct families, and twenty-five animals of the Essex breed, imported and raised from the celebrated stock of Fisher Hobbs.

The principal farmery, consisting of the barn, stables, sheds, and piggery, was handsomely built, and kept in neat order. The *cast iron* pig-troughs were a great improvement in the common mode of construction of wood; they are indestructible by decay or the teeth of swine, easily kept clean, very portable, and always "right side up." The annexed figure shows their form—their cost was about $1,50 each, made by J. L. Mott of New-York city. Another in a circular form, with six divisions or partitions, would accommodate a larger number of animals.



The root crops, consisting of carrots and field beets, were in fine condition, and showed perfectly clean culture. An excellent provision was made for saving slops and every waste liquid from the house, which was conducted down a subterranean channel into a large tank. This tank opened on the lower side into the liquid-manure carts, so that they were filled without difficulty. In addition to this, an under-ground pipe conveyed it to the kitchen garden, where, by means of a hydrant, it was readily appplied to the growing vegetables.

We found a fine exemplication of the truth we have lately endeavored to enforce on the subject of the plentiful supply of water, which may be obtained from the roofs of buildings. A large leaden cistern in the upper part, furnished pure water at all times, affording the same conveniences in every particular that are obtained in the city by the use of the Croton water, and which might be easily secured by every country resident who will only take the pains to avail himself of the advantages within his reach.

Letters on British Agriculture—I.

London, August 18, 1853.

L. Tucker, Esq.—I have no doubt you are thinking me dilatory, and I fear you are blaming me for not having yet written the first word, in fulfilment of a promise made three months ago, to give you, from time to time, some account of my observations on the agriculture of Great Britain. My only apology, and I will give it without evasion, arises from the following considerations:

English agriculture is a very different thing from American. To raise produce under skies that are always weeping, in an atmosphere seldom hot and never very cold, where plants grow slowly, but have nearly the whole year to grow in, is one thing; and to raise it where Sol and Boreas divide the year equally, one compelling plants to grow fast, and the other killing them quickly, if not out of his way, is quite another thing. Almost as different are the processes of growing and fattening animals in the damp climate of these islands, and the dry and clear, but changeful climate of the United States.

Of all this I was measurably aware before, but did not realize the extent of the difference. I found, on coming here, that an American agriculturist, in looking at British agriculture, has a new subject before him. It seemed to me, that in such a case one must learn before he teaches. So much for not having begun sooner. For similar reasons my progress may be as slow as my commencement has been tardy. If I should take a year to do what I proposed to accomplish in a few months, it would not be strange. There are many points about which I cannot speedily satisfy myself, and I am quite sure you would not wish me to speak till satisfied of the truth and importance of what I am to say.

Our English brethren are undoubtedly before us in agriculture. They are managing *their* resources better than we are *ours*. To me, as a citizen of a country just beginning its existence, it is no mortification to acknowledge this. If we are not up to them twenty-five years hence, then will be the time to be ashamed. They are not only in advance of us now, but they are "*going ahead.*" This term, I believe, originated with Americans; but in its *application* it does not belong to them exclusively. Our friendly rivals are "going ahead." We shall not catch them napping. If we would not be ashamed of being behind by-and-bye, when we ought to be abreast, we have not only to come up where the English farmer now is, but we must become as scientific, as skilful, as wise as he will be a quarter of a century hence. Free trade has done wonders for English farmers. It has led them to say—"If six bushels now bring us no more than five did before, then we must grow six bushels as cheaply as we then did five, and we shall be as well off as before." That was the problem. They have already worked it out, and in working it out they have gained an impetus, which is carrying them over the line, and is making them better off than before. Driven from their dependence on high prices, they now depend on abundant and cheap production.

Since "free trade" in food is the order of the times, American farmers should aim at the same result; but, for reasons already alluded to, the result cannot in all cases be reached by the same means. The trade of an American farmer is about as different from that of an English farmer, as the trade of a blacksmith is from that of a carpenter. The carpenter might do well to imitate the blacksmith, in his habits of early rising, industry and perseverance; but if he should put his board into the fire and blow it, before bringing into shape, the result would not be good. Or, if the blacksmith should undertake to straighten his piece of steel with a jointer, it would not work well. And yet these imitations would not be more absurd, nor lead to much worse results, than a thousand imitations which might be made by American farmers, of what would be good usage in Great Britain.

Much harm has been done in our country, by imitating English practices, without duly considering the differences in soil, climate, and the true value of produce; and I now see clearly, what I did not before comprehend, that scientific men, those who are truly scientific, have, in some cases at least, misled practical farmers, in consequence of having received their instructions in foreign countries, and from books written in foreign countries. Foreign books on the applications of science to agriculture, may have been useful on the whole; they may have awakened a spirit of inquiry, but they cannot be depended upon—they are liable to mislead. Each country needs an agricultural literature of its own, growing out of its own soil, and shaped to its own wants.

You will recollect that in giving your readers some account of British agriculture, I was to discriminate between such usages as may be advantageously copied, and such as may not. This has not yet been done. It is no easy task; and if I take more time to study the subject than was contemplated, I am confident that your well known caution, your wish not to mislead, and your utter contempt for the practice of teaching before learning, will lead you to judge leniently of any delay on my part, either past or future.

In the prosecution of this subject, it will be natural to inquire in the first place, what are *the annual results* of British agriculture, and then ascertain *how these results are obtained*, discriminating as far as possible between such practices as are applicable to American agriculture, and such as are not. Of the first of these questions, I propose to dispose very briefly, in the remaining part of this letter; but to dwell more at large on the second in future letters.

Strange to say, while the British government has gathered up and embodied the statistics of every other great interest, with wonderful accuracy, it has almost wholly neglected those of agriculture. Societies and individuals have done something to supply the deficiency, but not all that could be desired. According to the best authorities I can find, I have reason to believe that the following statements, so far as they go, are not very far from the truth.

The population of Great Britain and Ireland, at the present time, may safely be set down at 30,000,000. Several valuable writers, and, among others, McCulloch, have estimated the agricultural population at 2,500,000. It has been common, also, to estimate the male field laborers at 750,000. Respectable as are the authorities, I cannot but think them too low, the former by half a million, and the latter by a quarter of a million. If so, then the following statements are near the truth:

Whole population,	30,000,000
Agricultural population,	3,000,000
Male field laborers,	1,000,000

The British Empire (in Europe) embraces not far from 75,000,000 acres. It is equal in extent to sixteen such states as Massachusetts. This would give for each person two and a half acres; whereas, in the state of Massachusetts, there are five acres for each person, which shows that the population of Massachusetts has attained just about half the density of that of the British empire. The lands of the united kingdom may, without essential deviation from truth, be distributed thus:

	Acres.
Cultivated land, including meadows and arable pastures,	50,000,000
Pasture land, valuable as such, but unfit for the plow,	10,000,000
Fens, bogs, heaths and moors, nearly unproductive, but reclaimable,	10,000,000
Broken land, slightly productive, and nearly hopeless,	5,000,000

I do not suppose that the foregoing numbers are accurate. They are given as round numbers, expressive of what I suppose may be regarded as an approximation to the real state of the case. Proceeding in the same manner, the land actually under the plow may be set down at 25,000,000 acres, and may be distributed thus:

	Acres.
Wheat,	5,000,000
Barley,	2,275,000
Oats and rye,	6,250,000
Beans and peas,	750,000
Potatoes, turneps, and rape,	5,000,000
Clover,	2,000,000
Fallow,	2,000,000
Hops,	50,000
Flax,	100,000
Gardens,	250,000
Various other crops,	1,325,000

McCulloch, in his Dictionary, Geographical, Statistical and Historical, the materials for which were collected, of course, before 1849, as the work bears date of that year, gives the following, as what he believes to be the annual value of the woodlands and pasturage of the united kingdom. I copy his estimate for England and Wales, and annex his sum totals for Scotland and Ireland:

Cattle, 1,100,000,	£13,200,000
Calves, 200,000,	600,000
Sheep and lambs, 6,800,000,	10,200,000
Wool, (exclusive of slaught'd sheep)	4,056,000
Hogs and pigs, 555,000,	1,000,000
Horses, 200,000 grown annually,	3,000,000
Poultry, eggs, rabbits, deer, &c.,	1,344,000
Meadow and grass,	13,000,000
Dairy produce,	12,000,000
Wood, uncultivated land and wastes,	3,350,000
Total for England and Wales,	£61,750,000
Same for Scotland,	8,500,000
Same for Ireland,	21,500,000
Total for the empire,	£91,750,000

The following figures also are from McCulloch: "Aggregate annual value of the agricultural produce of the united kingdom:"

For England and Wales.

Crops and gardens,	£79,992,857
Pastures, woods, and wastes,	59,750,000
Total,	£139,742,857

For Scotland.

Crops and gardens,	£18,744,287
Pastures, woods, and wastes,	8,500,000
Total,	£27,244,287

For Ireland.

Crops and gardens,	£27,126,667
Pastures, woods, and wastes,	21,500,000
Total,	£48,626,667

Recapitulation.

Total for England and Wales,	£139,742,857
for Scotland,	27,244,287
for Ireland,	48,626,667
Total for the empire,	£215,613,811

If ten per cent. be added to this amount, for increase since 1848, and the sum be reduced to federal money, we shall have, as the annual results of British agriculture, in round numbers, $1,185,000,000—a result which seems to me astonishing, in view of the small number said to be engaged in that occupation. Englishmen boast that "Britannia rules the *sea*;" but, viewing human life as I do, I cannot but decide that her achievments *on the land* are far more glorious. Her present Sovereign, beloved, I may say, as well in America as in England, *for her goodness*, loves peace, and rejoices to cultivate the arts of peace. The royal consort, also beloved wherever men appreciate quiet usefulness, is said to be himself a farmer, engaged in superintending (through a bailiff I presume) the cultivation of a model farm, and in the rearing of noble *stock*.

But the foregoing figures give but a very partial, a mere dollar and cent view, of the subject. English agriculture has for many years *nearly* supplied a population of 256 persons to the square mile, or, (exclusive of lands hitherto little productive) of 320 persons to the square mile, with food; and English agriculturists, if I rightly comprehend their spirit, mean, before long, to *quite* supply an increasing population with as much, as good, and nearly as cheap food, as is consumed by any other nation in the world. They suppose that they have the resources; they believe that they will *find out the way;* and, with their present zeal for improvement, I think they will. As Americans, we may regret the improbability of being able to pay our dues to them in agricultural produce; but I think we shall have to admit, very good-naturedly, that in endeavoring to supply their own market, they but do as we would in their place; and, if necessary, to try to get along with less of their manufactures.

But there is still another view of this subject. The results of agriculture are not alone to reward honest labor, nor yet alone to furnish food; in connection with both these, there is an infinitely higher end to be gained. Intelligent husbandry, more than any, or all other causes, save the direct influences of Christianity, tends to the elevation of the race—to the hastening of that time when universal peace shall embosom the earth, when nations shall love instead of destroying each other, and when man shall everywhere recognize in his fellow a *man* and a *brother*.

I am happy to know, Mr. Editor, that you fully comprehend the refining, elevating, harmonizing influence of *enlightened* agriculture, as distinguished from the unintelligent, unprofitable, wasteful, tasteless procedures, that have too much prevailed in our country. I know that you are laboring to diffuse right sentiments on this subject; I know, too, that you are successful. A change is coming over the scene. Respectfully yours,
J. A. Nash.

◆

Composition of the Atmosphere.—The minute proportion of carbonic acid gas in the atmosphere, had led some to suppose its presence merely accidental, and variable with locality. Guy Lussac ascended at Paris in a balloon, to a height of nearly 22,000 feet, or more than four miles, the greatest height ever attained by man, and by afterwards analysing a bottle of air filled at that height, found the composition precisely as at the earth's surface.

Spurious and Genuine Science.

Our readers may remember that we made some remarks a few weeks since, showing the absolute necessity of connecting Practice with Science, so far at least as the application of chemistry to agriculture is concerned, and that mere theoretical reasonings on the results of cultivation were unreliable until their accuracy is proved by actual experiment. In the course of these remarks we pointed out some false assertions on this subject, published in the *Working Farmer*, by J. J. Mapes, and in reply he has come out in nearly five columns in his last number. Unfortunately for himself, he has furnished no arguments to prove his positions, but deals entirely in assertion, and of course but little notice of his article is needed from us.

He asserts at the outset that we admit "that *chemistry* has been useful to the *mechanic* arts." Now, we never admitted such an absurdity; and the public can judge of the fitness of such a person for a public teacher, who is so ignorant as not to know the difference between chemistry and mechanical philosophy. He understands so little of the nature of argument as not to know he was demolishing his own reasoning, in his attempt to refute our position, when he quotes the example of the old lady who told her boy "never to go into the water till he had learned to swim," for he denies the necessity of *practice* in connection with *theory*, at least in agricultural chemistry, if not in swimming. He stoutly "asserts," (to use his own favorite word so often repeated,) that there "need be no error in anticipating results from theory," and yet in direct contradiction of this position, he unwittingly admits all we have said, by stating that "we have placed our laboratory in the middle of a farm which we cultivate ourself, and on which we try every experiment which theory may suggest, before promulgating it."(!!) As a specimen of the style of his argument, we give his mode of disposing of our objection to his claim for the infallibility of the analysis of soils and its uses. "We re-assert the above," says he, "and put the *Country Gentleman* to the proof of the contrary."(!!!) This is certainly a cheap way for a professed public teacher, one who calls on the public for credence in his assertions, to get rid of doubts of his correctness. If such a puny man, (comparatively) as Christopher Columbus, had adopted this same mode of reasoning, he might have saved himself much trouble, and told the doubting sovereigns of Europe, "I re-assert what I have said of the western world, and call upon you to prove the contrary." What is the reason that numbskull, Robert Fulton, never thought of this easy way to prove steamboats of general utility, by telling his incredulous countrymen, "I assert that steamboats are a practicability, and I call upon you to prove the contrary." This mode of argument would never have answered for such men as these—what then must be the self-estimate of a man who presumes to adopt it at the present time?

It is quite needless for us to occupy more space in pointing out such specimens of contradiction and empty assumption. A cotemporary informs us that the editor of the Working Farmer receives $10 for an analysis of soil, and $25 for a letter of advice, and expresses its belief indirectly, that this is the secret of Mapes' scientific zeal. We do not endorse this, but leave our readers to form their own opinions, to do which they are fully competent. We desire, however, to say in conclusion, that it is fortunate for the agricultural public that, (so far as we know,) the thoroughly educated agricultural chemists of the day—men who have devoted years to laborious and accurate investigation of this subject, make no such pretensions as are so frequently and confidently put forth by the editor of the *Working Farmer;* and when we find a professed chemist asserting that he "has made analyses of the soils of more than 100 farms, and advised modes of culture founded on such analyses, and in no one instance without increasing the profits of the farmer more than *one-third*," we are led irresistibly to the conclusion that such assertions can only emanate from a pretender, and are made for other purposes than the promotion of the public benefit.

◆

Vermont State Fair.

The Annual Exhibition of the Vermont State Agricultural Society for this year, was held at Montpelier, the capital of the State, on the 13th, 14th and 15th of September. The ground selected for the exhibition, was a beautiful plateau about a mile east of the village, and some two hundred feet above it, affording a full view of the town and the mountains by which it is almost entirely surrounded, with the Camel's Rump in the distance. The view on all sides was striking and beautiful. About twenty-five acres were enclosed by a substantial board fence. In the enclosure, buildings were erected for the exhibition of domestic manufactures, agricultural implements, dairy products, &c. A large tent occupied a conspicuous place, which was devoted to the use of the several committees. A trotting course of half a mile in length, was laid out for the display and exercise of the horses, on one side of which, long rows of seats, rising one above another, were erected, sufficient to accommodate three thousand persons.

The premiums on horses were offered with particular reference to the different varieties of the Morgan breed, of which about one hundred were on exhibition. They were arranged in four classes—the first embracing the descendants of the Sherman Morgan—the second those of the Woodbury Morgan—the third those of the Bulrush Morgan, and the fourth, crosses between any of the preceding classes—the whole constituting an exhibition which, for beauty and value, it would be difficult for any other state in the Union to equal.

The *Shermans,* including the celebrated Black Hawk branch, were far the most numerous, numbering about fifty. It was a source of regret that "Black Hawk" was not present, the illness of Mr. Hill preventing him from exhibiting Black Hawk or any of his horses. The premiums in this class were awarded as follows:

Stallions.—Over Seven Years Old.

1. Jesse Berry, Barton,	$12 00
2. S. P. Peck, Montpelier,	8 00
3. W. Bemis, Lyndon,	5 00

Between Four and Seven Years.

1. Redin & Myrick, Bridport,	$12 00
2 L. Hammet, East-Montpelier,	8 00
3. L. Ford, Brownington,	5 00

Between Two and Four Years Old.

1. J. Ide, St. Johnsbury,	$7 00
2. W. H. Chamberlain, Whiting,	5 00
3. J. W. E. Bliss, Calais,	3 00

Yearling Colts.

1 and 2. E. C. Everettes, Vergennes,	$4 & 3 00
2. A. C. Palmer, Charlotte,	2 00

Brood Mares.—Over Five Years Old.

1. H. R. Johnson, Bradford,	$12 00
2. C. W. Sherman, Vergennes,	8 00
3. C. E. Benton, Newbury,	5 00

Between Two and Five Years Old.

1. G. S Gale, Bridport,	$6 00
C. E. Benton, Newbury, best yr'lng filly,	4 00

The committee say that they had great difficulty in deciding upon the merits of stallions from four to seven years old, for which there were 20 competitors for three premiums, and that if almost any three of them had alone been competitors, they would cheerfully have awarded them the prizes.

Of the *Woodburys,* there were seventeen stallions, two brood mares, one three year old filly, and one two year old stud colt on exhibition. The premiums were awarded as follows:

Stallions.—Over Seven Years Old.

1. R. M. Adams, Burlington,	$12 00
2. John Ayres, Grafton,	8 00
3. W. W. Blackman, Windsor,	5 00

Between Four and Seven.

1. J. Scott, Vergennes,	$12 00
2. Caleb Lyman, West-Randolph,	8 00
3. J. & R C. Johnson, Bradford,	5 00

Between Two and Four.

1. J. McKenzie, Hartland,	$7 00
2. E. McKenzie, Ferrisburg,	5 00

Brood Mares.

1. H. Keyes, Newbury,	$12 00
2. J. & R. C. Johnson, Bradford,	8 00
J. M. Ackley, Granville, for three year old filly,	6 00

Of the descendants of the *Bulrush* Morgan, only six or eight were on the ground. The first premium for stallions, over ten years old, was awarded to French Morrill, Danville, $12; the first for do, between five and seven, W. Carlton, Barre, $12. The 2d to John Doty, Montpelier, $8. The first for Brood Mares, to J. & R. C. Johnson, Bradford, $12.

The claimants for the above premiums were required to produce satisfactory pedigrees, so that the future publications of the Society may furnish authentic records of the blood of desirable Morgan horses.

Premiums of $12 to C. E. Benton, Newbury, and $7 to Harry Griffith, Tunbridge, were awarded for Morgan crosses.

The class of *foreign horses,* of which fifteen or twenty were exhibited, consisted mostly of different branches of the Morgan family. But one premium for each branch was offered. In the Sherman branch, a majority of the committee were in favor of awarding the prize to L. North, Champlain, N. Y.; but as they could not agree unanimously, they recommended also that a premium of the same amount be awarded to L. C. Hall, Manchester, N. H. The premiums for the best Woodbury and also for the best Bulrush branches, were awarded to E. Pike, Cornish, N. H. The committee also commended a pair of Sherman Morgan mares, exhibited by W. Pierce, Stanstead, C. E., and a stud horse of the same breed, belonging to G. W. Johnson, Clarenceville, C. E. The premium for "other bloods" was awarded to J. Chapin, Greenfield, Mass.

The premiums for "other blood horses," belonging to the State, were awarded as follows:—

1. L. Graves, Brookfield,	$12 00
2. E. J. Kelly, Rutland,	8 00
3. W. Holt, Weston,	5 00
For stud colt, first premium to M. E. & L. Cheney,	7 00

Of matched horses and single mares and geldings there was a fine exhibition, but the list of premiums we failed to procure.

CATTLE.—Of Short-horns, but few where exhibited; among them we noticed the fine bull, Duke of Wellington 2d, owned by T. Holton, Putney. A. L. Bingham of Cornwall, and D. M. Briggs of Richmond, were the only exhibitors of Herefords. Of Ayrshires and natives but few were on the ground. There was a fair display of oxen and steers, amounting to from 35 to 40 yoke. The Devons exceeded in numbers and beauty all the others imported breeds. Among them was a bull and two cows, imported last year by W. R. Sanford of Orwell, from the celebrated herd of Mr. Turner. The premiums awarded on Devons were as follows:—

BULLS—*Over three years*—1. D. Dennison, Hartland—2. Bemis & Dennison, Lyndon—3. Richard Green, Andover. *Under three years*—1. W. R. Sanford, Orwell—2. Daniel Davis, Springfield—3. R. Green, Andover. *Calves*—1. W. R. Sanford—2 and 3. H. M. Hall, Burke.

COWS—1. W. R. Sanford—2. H. M. Hall—3 S. D. Walbridge, Bennington. *Heifers*—1 and 3 to W. R. Sanford—2. U. M. Hall. *Calves*—1. U. M. Hall—2. S. D. Walbridge.

SHEEP.—Next to horses, the exhibition of sheep was the great attraction, more sheep having been imported into Vermont, during the last few years, than into any other State in the Union. Of the different varieties of the Merino, there were about 400 in the pens—a show, which, for variety and excellence, it would be difficult for any other State to produce. The French Merinos, imported or raised from imported stock, were in the greatest number, and the premiums were awarded, on

RAMS—*Over two years*—1. A. L. Bingham, Cornwall—2. S. W. Jewett and H. S. Morse—3. J. Gregory, Northfield. *Yearlings*—1. Jewett & Morse, for "Ten Thousand"—2. A. L. Bingham—3. A. V. Stockwell, Brattleboro. *Lambs*—1 & 3. S. W. Jewett—2. A. L. Bingham.

Ewes—pen of 5 *over two years*—1. H. S. Morse, Shelburne—2. A. L. Bingham—3. John Gregory, Northfild. *Yearlings*—1. A. L. Bingham—2d and 3d, H. S. Morse.—*Lambs*—1 and 3, S. W. Jewett, Weybridge—2. A. L. Bingham, who also received the 1st and 2d premiums for the best 25 Ewes, not included in the previous classes. The committee also commend, as worthy of special notice, some sheep exhibited by Mr. Kimball, of Clarendon, a cross between the French and Spanish Merinos, for which no premiums were offered.

For German and Silesian Merinos, the prizes were awarded to

George Campbell, Westminster West, for best 2 and 3 year old rams; for the best and 3d best pens of Ewes, over three years, and for the 1st and 2d best under two years; also the 1st and 2d for Ewe lambs—for the second best ram under two years, to A. V. Stockwell—for second best pen of Ewes, to W. R. Sanford.

Of Spanish Merinos there was a large exhibition; and among those exhibited by Messrs. Hammond, Messrs. Cutting, Mr. Campbell and Mr. Sanford, were some of the finest of this kind to be found in the country. The premiums were awarded as follows:

RAMS—*Over two years*—1 & 2. to W. R. Sanford, Orwell, and E. Hammond, Middlebury—3. to George Campbell. *Yearlings*—1. W. R Remelee, Cornwall—2. N. Saxton, Waltham—3. W. R. Sanford. *Lambs*—1. E. & W. Hammond—2. W. R. Sanford, Orwell—3. N. Cushing, Woodstock.

EWES.—For the best pen of 25, to W. & E Hammond, who furnished a statement signed by three reliable witnesses, that these sheep sheared over 9 lbs. of clean washed wool per head. The second was awarded to J. Cutting, Shoreham, whose sheep averaged 7 lbs. 6 oz. per head. For pens of Ewes, E. & W. Hammond received the 1st prizes for yearlings and two year olds, and the 2d for lambs. G. Cutting, Shoreham, the 2d prizes for yearlings and two year olds, and the 1st for lambs. Geo. Campbell, the 3d best for yearlings, two year olds, and lambs. The committee notice with approbation, a cross of the Silesian and Spanish Merino, presented by George Campbell, and a French and Spanish cross exhibited by E. Bridges, Pomfret, and recommend an honorary premium to each.

Of long wool sheep, there was some fine samples exhibited by D. Baldwin, Montpelier, John Gregory, Northfield, D. Fish, B. Town, Montpelier, E. Norton and E. Douglass, Chelsea, A. Stewart, Bristol, and W. Z. Warren, Middlesex.

SWINE.—G. F. Whitney of Woodstock, exhibited a pair of superior Suffolks with a lot of pigs, and received the 1st premium for boar and pigs, and the 2d for sows. N. Richards, Vergennes, exhibited a fine lot of Suffolks, and received the 2d prize for boars, the 1st for sows, and the 2d for pigs. Leander Warren, Middlesex, received premiums for a cross-bred Suffolk sow, and also for a lot of cross-bred pigs.

The exhibition of Butter, Cheese, and Maple Sugar, though not very extensive, was highly creditable to the State.

The exhibition of Domestic Manufactures, and of Fruits and Flowers, by no means equalled our expectations. The fruits consisted of two lots only, from L. H. Spear & Co., Braintree, and Mr. Ketchum, Sudbury. In the domestic department, was some fine specimens of needle-work, and a sample of shell-work by Mrs. E. P. Walton, of Montpelier, quite equal to anything we have ever seen.

The annual address was delivered on the 2d day, by Rev. Dr. Wheeler, Burlington, and was spoken of as able and instructive, and worthy of the occasion and the orator. He was followed by Gov. Wright of Indiana, in an extempore speech of great effect, which drew out three cheers for the "Governor and the Hoosier State," on its conclusion.

Upon the whole, we think our friends in Vermont, and particularly the devoted and efficient President of the Society, have great cause to rejoice at the gratifying success which has attended their efforts, although unfortunately, the rains of Wednesday afternoon and Thursday, prevented the carrying out of all their arrangements, and undoubtedly greatly lessened the attendance on the occasion. It was estimated that there were from 15,000 to 20,000 persons on the show grounds on Wednesday morning, previous to the commencement of the storm.

Don't Pull off the Suckers!

MESSRS. EDITORS—In the Country Gentleman of week before last, I noticed an inquiry with regard to the propriety of pulling off from the Indian corn, the scions commonly called suckers. In my opinion, neither do the advocates for pulling off nor those for allowing them to remain, give correct reasons for their practice. Indeed, I have never known a farmer intelligent on this subject, nor have I any confidence that experiments conducted as proposed in the article referred to, will lead to any practical results. A little observation, science will give us more useful information on this subject, than years of experiment without it. That the suckers have an important office to perform in the production of the corn crop, and, therefore, should be allowed to remain, will, I think, appear from the following consideration. The Indian corn (Zea mays) is a monœcious plant, that is the staminate and pistillate blossoms occupy different positions on the same plant. The tassel, as it is commonly called, is the staminate blossom, and furnishes the pollen by which the silk is impregnated, and the new kernel is produced. The cob which bears the silk or pistillate blossoms, is in process of elongation after the pollen or dust has disappeared from the tassel. Just at the point where more pollen is needed to impregnate the silk at the end of the cob, the suckers and abortion stalks supply it, thus filling out the cob with kernels to the very tip or end. Where the suckers have been pulled off, it will be found that one or two inches of the cob is barren, thus causing quite a diminution of the crop. What amount of diminution the crop may suffer I am not able to say definitely, but give it as my opinion at least, from a twelvth to a fifteenth part. If these suggestions appear of any value, you are at liberty to publish them, hoping they may be remembered until another year comes around. Yours, &c., W. H. SCRAM. *Sand Lake Academy.*

Answers to Inquiries.

Guano.—Can you inform me through the Cultivator, whether soil can be kept rich and to bring good crops, by only applying Guano or Lime, or whether Guano will only do for one or two years, and then cease to benefit by sowing it on, unless the ground is again made rich with manure. A Subscriber. *Trexlertown, August* 5, 1853.

Guano, as usually applied, exerts nearly all its beneficial influence, the present season, a few rare instances being known where it has continued to exhibit its fertilizing qualities for several successive years. We are satisfied, however, that if properly made into compost before applying, so that all its valuable ingredients, including ammonia and the salts, could become thoroughly absorbed by fine intermixture with large masses of clayey loam, turf, and other substances of like character, it might be made as durable as other animal manure.

Lime has proved a very durable manure in those cases generally where its application has been beneficial; but it should never be applied in connection with guano, unless it has been completely converted to a carbonate, or unless the guano is largely and thoroughly diffused through a compost.

Salting Hay.—I think an improvement on the plan of "Observer," in the August No. of the Cultivator, for salting hay, would be to sow fine salt broadcast, on the standing grass, while it was wet with dew, the morning previous to mowing. H. H. H. *Moriah, Essex Co., N. Y.*

Refuse of Salt-works.—In the Country Gentleman of 11th August, some questions were asked about the refuse of the Onondaga salt works. In addition to what was then stated in reply, we may add that we find in the Report of the Superintendent of Salt Springs for 1850, several analyses of these matters, made by Prof. Cook, of this city.

The *bitterns*, as they are called, and which constitute the sediment taken from the boiling brine, consist essentially of plaster. The scale which forms in the kettles, called *blocking*, and which is taken out when they are cooled down, is a mixture of plaster and salt, varying in the propoportions of the ingredients with the thickness of the scale—the thickest being nearly all salt, and the thinnest containing 40 or 50 per cent of plaster. The sediment taken from the *lime-rooms* in the solar fields, is plaster. The most valuable manure about the salt works is the wood ashes. There are perhaps 200,000 cords of wood consumed annually, in making salt, at Salina, Syracuse, Liverpool, and Geddes. These ashes usually have some salt mixed with them, which spoils them for making potashes, but does not diminish their value for manure. They are perquisites of the salt-boilers, and are sold at a nominal price.

Thrashing Machines.—In answer to the inquiry of Warren Hill, of Machias, (Me.) who wishes to procure a machine suitable for small grain crops, consisting mostly of oats, barley and buckwheat, we state, that well finished machines, connected with endless chain horse-powers, may be had, completely furnished, of Emery & Co., and Wheeler, Melick & Co. of this city, for $158 for two-horse powers, and $125 for one horse powers.

There are no better machines of this kind made in the country, than those manufactured by the above firms, and we think them well adapted to the purpose mentioned by our correspondent. Good machines are also made by E. W. Badger & Co. of Otsego Co., and at several other places in different parts of the State.

Subsoil Plows.—I wish to ascertain through the Country Gentleman, what kind of a subsoil plow would be preferable on a clay or a clay loam soil, and whether it should be used in fall or spring for a spring crop, and also the price for the different kinds. A Subscriber.

The only subsoil plows manufactured in this country, are all constructed on the same principle—the best are those of Ruggles, Nourse & Mason, and of Prouty & Co. The price, full rigged, is about $10. As the soil becomes gradually compacted together again in the course of a few years after the operation, it would be looser and in fresher condition if plowed in spring. Unless the soil is well drained, the subsoil packs together again too soon to be of much use.

Treatise on Milch Cows.—In the Country Gentleman, page 149, Guenon's mode of examining cows is illustrated. Also on 308th page, is a notice of a method improved and simplified by John Nefflin. If you will be so kind as to inform me, through the Country Gentleman, where they can be purchased, and at what price, you will much oblige me. P. Y. Van Derveer.

Guenon's work can be had of C. M. Saxton, New-York—price 62½ cents. We presume Mr. S. could also furnish Mr. Nefflin's work.

Rosendale Cement.—Seeing in your last week's issue an inquiry for Rosendale Cement, I would say that the office of the company is at Newark, N. J., where I believe all the writing is done. A letter addressed to H. Wylde, Secretary, Newark, N. J., will elicit information as to where it can be obtained. There are generally agents in all the principal cities and towns for its sale. D. L. Judson.

Heavy Fleece.—I notice in the "Country Gentleman" for August 11, an editorial for "Mr. Campbell's Merino Buck Matchless." The live weight, 280 lbs., is within reason, as I have known it to be excelled by other breeds. As regards the fleece, (25 lbs. for one year's growth,) is it a *very rough* estimate, or do *you know* it to be the fact? C. E. K.

By reference to the statement again, our correspondent will see that the weight of the sheep and fleece, are both given on the authority of Mr. Campbell—not on ours, as he seems to suppose.

Strawberry Baskets.—Will you inform me where those small baskets can be bought in which strawberries are sold, and what they cost, and oblige S. H.

They can be had of B. Bicknell, Albany—price $1.50 per hundred.

J. G. J., *Ilion.*—Thomas' American Fruit Culturist is just the work you want. It can be had at most of the book stores throughout the country. Price $1.

B. T., New-Haven, Ct.—The *Wool Grower* is published at Rochester, N. Y., by D. D. T. Moore—monthly at 50 cents a year.

Domestic Economy.

Preserving Fresh Fruits.

Having seen in print some notice of Wm. R. Smith's successful process of preserving fruits, and not having seen any reliable exposition of his process, I wish to inquire through your paper, whether the same has been made public? If his process is valuable let it be made public, or let us have it in some way or other; if not gratuitously, by paying the discoverer a fair compensation. B. J. HARVEY. *Lenawee Co., Mich.*

We have frequent inquiries of a similar character. The process which W. R. SMITH has adopted, consists substantially in expelling the air from the jars of fruit by heat, and then hermetically sealing them, and so far, is nothing new. But the minute details of the process, varying with circumstances, and often so modified when applied to different fruits, that what would succeed with one, would entirely spoil another,—have only been leaarned by long and careful practice. These details cannot be described by words merely, and months of experience would be necessary to enable any one, however ingenious, to reach the perfection which has been attained. From what we have personally observed of the process, we do not think an unpracticed person could succeed from a description, or from actually seeing the whole, any more than an unlettered man could, without a day's previous trial, set down at a desk and dash off a dozen letters in a free and elegant hand, merely from hearing a lecture on penmanship, or seeing another write. We do not know whether W. R. SMITH would be willing to receive and initiate pupils in the art—he would doubtless ask a large sum for doing so, as some compensation for the years of labor he has already bestowed in perfecting the art.

The Preservation of Eggs for Winter Use.

I notice on page 121 of your last, a new mode of preserving eggs. I think I can describe one that is much better, because cheaper, less roomy, and much more philosophical. It should be borne in mind, that eggs are mainly composed of albumen, mixed with a minute quantity of the salts of sulphur, phosphorus, lime and magnesia. The shell consists mostly of lime. Of the whole weight, the shell constitutes about one-tenth, the white six-tenths, and the yolk three-tenths. Few animal substances are so putrescent as eggs, unless preserved with care. The shell, composed as it is mostly of lime, glued together with a trifle of animal matter, is its most natural and safe depository. Yet even the shell yields gradually to the action of the atmosphere, so that a part of the watery fluid of the egg escapes, and air occupies its place, thus injuring the quality of it.

The great secret then of preserving eggs, is to keep the interior in an unaltered state. This is best done by lime-water, in which a little common salt is infused. This constitutes a fluid perfectly indestructible by air, and one that is so allied to the nature of the shell as not to be absorbed by it, or through it into the interior of the egg. On the other hand, salt or lime, in a dry state, will act on the moisture of the egg, as will strong ashes. This plan, also, will save more eggs in a given space than any other. It will also admit of keeping them in cellars ever so damp, and, I had almost said, ever so foul, since nothing will be likely to act on the lime-water. As eggs are very nearly of the specific gravity of water, and so near with it, I have little doubt that eggs barreled up tightly, in lime-water, could be transported as safely as pork.

Lime-water may be made in the most careless manner. Seven hundred pounds of water will dissolve about one pound of lime. A pint of lime, therefore, thrown into a barrel of water, is enough, while ten times as much can do no hurt, and will not alter the strength of it. The salt, which I do not deem very important, should be put in in a small quantity, say a quart to a barrel. All are aware, that a very large quantity of salt may be dissolved in water. Brine, strong enough for pork, would undoubtedly hurt eggs.

Having made your lime-water, in barrels if you are a merchant, and in stone-pots if you are a small householder, drop your eggs on the top of the water, when they will settle down safely. It is probably important that no bad eggs go in, as it is supposed by some that they would injure others. To test your eggs put them in clean water, rejecting all that rise. A better remedy is to look at them through a tube—say a roll of paper, by daylight, or hold them between your eye and a good candle by night. If the eggs are fresh, they will, in either case, look transparent. If they are a little injured, they will look darkish. If much injured, they will look entirely dark.

Eggs, well put up and kept in this manner, will keep, I cannot tell how long, but until they are much more plenty and cheap than at present, quite long enough.

Leached ashes well dried, and even grain, have, kept eggs very well, in my experience, but no method is so cheap and obvious as the lime-water. As lime absorbs carbonic acid slowly, and thus becomes insoluble, so almost any lime, even though it has been slacked for months, will answer the purpose. Lime water, permitted to stand still, will immediately be covered with a transparent film. This is the lime of the water uniting with the carbonic acid of the atmosphere, and returning to the state of limestone, and does not hurt the eggs.

I send you this long account of a small thing, not because it is new, but because many people forget old and very familiar things. C. E. GOODRICH. *Utica, August 26th*, 1853.

◆

TO BAKE APPLES.—The person who has eaten baked sweet apples with milk, needs no commendation of the article. For this purpose Tallman Sweetings are best But those who have tart apples only, may secure a delicious dish by the following process:—Pare them, if thick skinned, cut out the largest portion of the core from one end and place the fruit on well glazed earthen dishes or pans, with the cored end upwards, and the cavity filled with refined powdered sugar. Then bake them. All we ask is trial.

Horticultural Department.

Frauds of Nurserymen.

Nurserymen have a better chance to cheat than most others, on account of the long time required for detection; and for this very reason their frauds are greater impositions, robbing time as well as money. Horticultural and rural improvement have been greatly impeded by the errors which they have committed, ignorantly as well as intentionally. A very fruitful source of unintentional errors has been the practice of taking things on trust. A young nurseryman wishes to propagate a certain list of fruits, or an older one wishes to add to his catalogue—they immediately send to some other nursery and obtain the trees, and not willing to lose five or six years to see them bear, they commence at once to raise and sell trees from them· and, like the man who borrowed his absent neighbor's horse, intending to ask leave when he returned, they sell the trees first, and intend to prove their correctness afterwards. An honorable and worthy nurseryman showed us a cherry tree in bearing, which he had procured under the name of Napoleon Bigarreau, and from which he assured us he had already sold hundreds of trees—that was then bearing a bitter little mazzard. Errors are in this way multiplied. We could write fifty columns in describing the mistakes which we have detected in receiving trees from different nurseries. An eminent individual, (now deceased) from whose establishment we expected to get every sort correct, sent us, as time has since proved, more than half his trees under wrong names. These were mistakes, not frauds; and we have no doubt that most American nurserymen have endeavored to treat their customers fairly, but not having *seen* much of what they were selling, they were mostly working in the dark. We question, however, if as much as this can be said of European nurserymen, as they existed some years ago, although we know there were honorable exceptions—but the exceptions were not the rule. It appears they thought it of little consequence what was sent to the ignorant Yankees of the western woods. W. R. Prince, in order to prove the rascality of certain French dealers, invented a list of such names of fruits as he had never heard of, and his order was filled under those very names! We question if any body but Prince could have done this.

The increase of the nursery business has witnessed a great improvement in the accuracy with which it is conducted. Facilities for propagating from bearing trees have increased; the increased intelligence of the community admits of less toleration of blunders; and the desire of a fair reputation has stimulated many to accuracy, to say nothing about the promptings of genuine honesty, of which we believe a portion of our nurserymen have a respectable share. Europeans, where not actuated by better motives, have discovered that Americans actually possess shrewdness enough to know when they are well treated, and they find it to their interest to retain, if possible, what has lately proved a very large share of their custom.

In connection with this subject, we wish to add a few remarks relative to *warranting* the correctness of trees. Purchasers have sometimes required it of nurserymen, and we observe lately that some of the western papers avdocate legislative enactments for restoring losses by errors or frauds.

Now, there are some insuperable difficulties in the way of reducing this proposition to practice. In the first place, purchasers make quite as many mistakes as sellers; and we have known them, after a lapse of years, to forget and misplace lost names—to attribute certain trees to wrong sources—and to be quite mistaken in the correctness or the fruit produced, from ignorance or erroneous notions of its character. Nurserymen can afford to warrant their trees, under the following conditions only: The trees, as soon as received, must be set out, and registered in a book by a careful and disinterested person. There must be evidence preserved that any vacancies in the plantation are not supplied from other sources during the years that elapse before bearing,—or that the grafted portion is not browsed down by cattle, and that the stock does not spring up in its place; and lastly, sufficient pomological authority must be obtained to decide all doubtful questions touching the correctness of names. In most cases, all these precautions would be quite impracticable; and therefore it will be best to ascertain the most reliable sources, and obtain trees from those sources, even if it be at a greater distance or at an additional cost.

Notes on Fruits.

The Ott Pear.—The "ad interim report" of the Pennsylvania Horticultural Society makes the following statement with regard to the Ott pear: "This is the fifth consecutive year that we have had an opportunity of testing the quality of this fine Pennsylvania fruit, which we regard as the *most delicious of all summer pears.*" There are but two other summer varieties, which, in our opinion, come up to the Ott in flavor, or nearly so; these are the Rostiezer and Tyson.

Conestoga Cherry.—The same report gives the following account of this new cherry. "It originated in Conestoga township, Lancaster county, Pa. Fruit very large, obtuse heart-shaped, slightly indented at the apex, dark purple, stem an inch and three-fourths to two and a fourth long, slender, inserted in an open cavity; flesh purplish, firm; flavor sugary and very pleasant; quality, 'best.'"

Qualities of Various Fruits.—The following were the qualities pronounced by the Fruit Committee of the Pennsylvania Horticultural Society, on several of the older summer fruits, the scale of the American Pomological Congress, "good, very good, and best," being taken.

Cherries.—Buttner's Yellow, very good, Late Bigarreau (of Kirtland) very good; Buttner's Morello, scarcely good; Napoleon Bigarreau, very good; Graffion (or Yellow Spanish) very good; English Morello, best for culinary purposes. *Plums*—Bingham, very good. *Pears*—Manning's Elizabeth, very good; Rostiezer, best; Limon, very good; Tyson, best; Dearborn's Seedling, good; Bloodgood, very good.

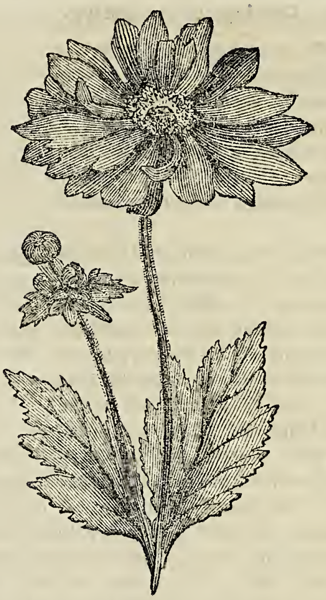
American Agave.*

Most of our readers are familiar with the *Agave americana*, (or Century Plant, as it is improperly called,) in the form that it usually appears as a comparatively small, or pot or tub plant, but it is quite a rare sight to see it in full bloom. Very few plants, indeed, have ever bloomed in the northern states, but one of the finest of these was the specimen near this city, kept by the late Stephen Van Rensselaer, and which flowered in 1842. The flower stalk, which was some three or four inches in diameter, shot up when it began to grow, with great rapidity, and in some days actually rose about four inches. The whole height, some twenty-two feet, was attained in about two months. During its growth, as it was found to be making such rapid upward progress, it became necessary to remove the roof of the hot-house which held it, and build a second story above. Its flowers being of a greenish yellow, and not large, were not showy; but their great number—several thousand borne on so majestic a peduncle, rendered the plant one of great interest.

The opinion is a very common one that the American Agave blooms but once in a century. This is quite an error, as under the best culture some twenty or thirty years are sufficient; and without good care, more than a century would be required. A high hot-house heat is needed for a few years before the time of flowering.

◆

New Fruits.—We have been favored by Dr. H. Wendell of this city, with samples of *Van Mons' Elizabeth* pear, which has borne on his grounds for the first time the present season. It is of small size, but of fine flavor, and should it prove productive, will be a valuable addition to our list of early pears.



The Japanese Wind Flower.

The Japanese Wind Flower, (*Anemone japonica,*) recently introduced from China, by Mr. Fortune, is a fine herbaceous perennial of great beauty; it is very readily increased from suckers that spring up plentifully around the old plant. This plant would doubtless improve from seed; as it is, no garden should be without it. Its flowers are purplish red, from eighteen inches to two feet high; flowering from end of July till August or September. Any good garden mold will suit it.

New Early Plum.

We have received a box of plums from J. B. Perry of Schaghticoke, of a sort much valued in that neighborhood for its good qualities. The tree is described as "very hardy, thrifty, and well proportioned in growth, productive, and ripening its fruit the first week in August, and hanging during all the month;" the fruit possessing the desirable qualities of good size, good quality, early ripening, and smallness of stone.

The specimens received were much injured by the intensely hot weather at the time they were sent, but making allowance for this, we should think them an agreeable but not high-flavored sort, and they may prove on further trial, on account of the above mentioned good qualities, worthy of cultivation. Their success in a single locality would hardly be a sufficient test. The specimens were full medium size, or quite as large as the Lombard or Lawrence; ovate, blue, with a dense bloom, suture moderate, stem considerably sunk, flesh thick, mild agreeable but rather insipid, free from the small stone. It appears to be quite distinct from any old sort, but we should think not equal in flavor to the Royal Hative, Imperial Ottoman, Howell's Early, and Hudson Gage, all of these ripening nearly at the same time. It may, however, be a better grower and a more productive tree.

* Pronounced A-gav'-y.

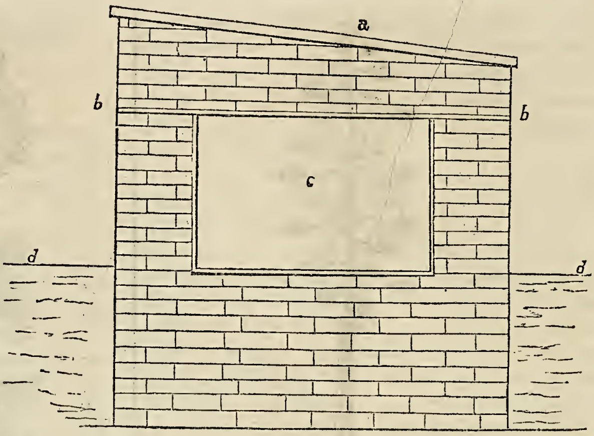
Striking Cuttings in the Spring.

With the present system of planting flower beds, that is, with a large quantity of *green-house plants*, or as they are more familiarly termed "bedding plants," nothing is of so much importance as a good contrivance for increasing the quantity by cuttings during the early months of spring.

To do this to any extent, and successfully, requires the assistance of a considerable amount of artificial heat. For this purpose nothing surpasses dung heat. To the gardener who has frames, pits, and forcing houses at his command, this is no difficulty. But to the amateur, to the "thousand and one" occupiers of suburban and small country residences, whose taste leads them to have their lawns around their dwellings laid out in borders and clumps, (and who does not,) it is a more difficult task to fill these pretty little spots with a share of the more choice products of congenial climes. Many plants, such as the Verbena, Petunia, Cuphea, Heliotrope, Fuchsias, &c., are quite as well, if not better, struck from cuttings in the spring; all that is necessary being to take up a few plants of each sort in the fall, and preserve them in the windows and dry cellars of the dwelling; and by this contrivance we can bring forward a quantity sufficient for planting a large space, which may be obtained at little cost and labor. All that is necessary, after the pit is built, being stable manure, which is mostly obtainable on the place. The accompanying sketch is a section of a one-light pit, being five feet long, four feet wide, and four feet depth of dung. A, light; B B, bottom for the pots to rest on,—best if of slate or thin slab stone; if that is not obtainable, of wood,—C, door, by means of which hot dung is put in or turned; D D, ground level.

A little tan or other plunging material should be placed on the bottom of the slabs, up to the rim of the pots. It can of course be made with several lights, but for the purposes we have named this size will be found ample, as it will hold 100 four-inch pots, which, with the small compliment of twelve in each, will make twelve hundred plants, a far greater quantity than is actually required for the purpose.

If about the middle or end of February the forcing is commenced by placing the old stored plants in the pit, in a short time cuttings may be taken off and struck, and this continued till a sufficient quantity is obtained, and according as they root, pottted off into small pots with the assistance of a three-light pit or frame to harden them off. By planting time, three or four hundred healthy plants may be got, besides affording an excellent opportunity for breaking old Dahlia stools, and bringing forward a few of the more choice annuals as well as tomatoes, melons, cucumbers and squashes, which is of great importance in obtaining these luscious fruits and vegetables. Edgar Sanders. *Albany, Aug.* 28, 1853.



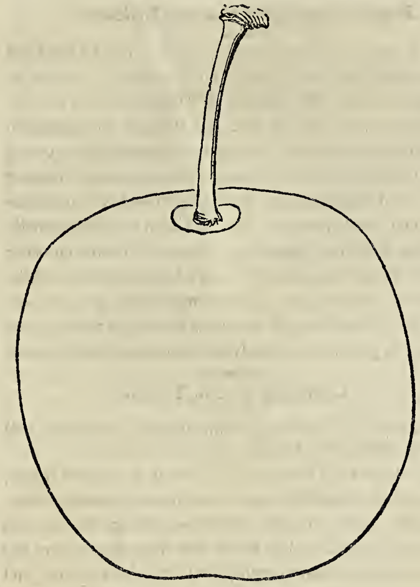
Transplanting Garden Plants.

I presume it will be satisfactory to many, to be informed when the different species of garden plants may be most advantageously transplanted. The months of August and September are preferable in this state, and in states to the north of it, for transplanting the following species; and the months of September and October for the states adjoining them on the south as far as the line of the Potomac; and October and November for the more southern states:

Strawberries of all kinds, if planted as above stated, will produce a fair crop the ensuing summer. It is preferable that the beds be three feet wide, and that four rows lengthwise be planted in the beds, the plants a foot apart each way. This width will admit of all the fruit being gathered from the sides without trampling on the beds, as is of necessity the case when the beds are of greater width. It need scarcely be stated that the ground should be previously well plowed or deeply dug and mellowed. A moist soil is preferable, and on no grounds will as heavy crops be produced as on drained meadow land. The strawberry will, however, flourish on drier soils and produce fair crops. The same periods are suitable for transplanting the fine large varieties of Rhubarb for tarts, the Sea Kale, Asparagus, Globe Artichoke Horse Radish, and Patience Dock, (the latter the best of all early greens, and very hardy, permanent and economical,) as they then become well rooted and established before the winter sets in.

All the hardy species of bulbous flower roots, such as Hyacinths, Tulips, Japan and other Lilies, Crown Imperials, Gladiolus, Bulbous Iris, Crocus, Narcissus, Jonquils, Fritillaries, Ornithologalum, and various others, and all the magnificent varieties of the shrubby (called Tree) Pæony, and of the Chinese and other herbaceous Pæonies, will, if planted thus early, become much more vigorous, increase more rapidly, and bloom with increased vigor and beauty.

Fruit and Ornamental Trees and Shrubbery and Roses, cannot be safely transplanted in this latitude, until the first of October, and those intended for the south should not be forwarded until the first of November, at which time vegetation will have become sufficiently dormant for their safe removal. To the western states, inland, they may be safely forwarded the beginning of October. Wm. R. Prince. *Linnæan Garden & Nurseries, Flushing, N. Y., Aug.* 24, 1853.



General Hand Plum.

One of the largest of all plums known, is one which originated somewhere in the State of Maryland, and which has received the name of *General Hand.* It has of late years received a good deal of attention from fruit cultivators, mostly on account of its great size, and we therefore furnish the accompanying figure. Its value is increased by its productiveness, and the uniformity of its bearing. It is roundish oval, the suture rather obscured, smooth, color deep yellow, faintly marbled with green; flesh juicy, of tolerably good flavor, not equal to the Washington, and placing the fruit too low for amateur cultivation, and only for such markets as give the preference to the most showy sorts.

◆

Garden Fertilizers.

I wish to inquire whether guano, bone dust, superphosphate of lime, &c., will answer for gardening purposes on a large scale, as well as stable manure. I wish to use large quantities of manure the coming year, and the fertilizers above named will be vastly more economical for me to use, provided they will answer the purpose as effectually as stable manure. Except what I can make in the regular course of my business, stable manure is a very expensive article; and if, with a liberal application, more concentrated manures will be as effective, I should think it best to give them the preference in use, even if I put one thousand pounds or more to the acre. David H. Raymond. *Hartford.*

There is no kind of manure so *uniformly* beneficial in its results as stable manure, doubtless in consequence of its containing a full proportion of all the essential elements of fertility, and including a large quantity of vegetable matter. Next to this, undoubtedly, of soil fertilizers, as are generally sold in market, is guano, which also contains many enriching ingredients, and in a high degree of concentration, but which must be largely diluted or mixed before they can be advantageously applied. There can be no question that one reason of the frequent failures in the use of guano, is a want of its very thorough previous intermixture with substances which shall hold it in a proper condition till wanted for the use of growing plants. Phosphate of lime or bone dust, and super-phosphate of lime or bones dissolved in acid, are more limited in their composition, and specific in their application, and hence are less uniformly beneficial, although sometimes of great value.

We would recommend our correspondent to make a compost heap, using all the stable manure he can easily obtain, adding in successive layers with this, turf, loam, ditch scrapings, &c., but making *loam* constitute a very important part in the heap. If the loam is decidedly clayey, a quantity equal to the bulk of the stable manure will be sufficient; but if it is more sandy in its character, and therefore less retentive of ammonia and other ingredients, two or three times as much should should be taken. The thinner and more frequent are the layers of manure and loam, the easier and more perfect will be the intermixture of the two when the heap is worked over, and the better the compost. Turf forms an excellent element from its vegetable matter, and from the looseness it imparts. Whatever deficiency there may be in the required quantity of this compost, may be made up by the addition of guano, reckoning, at a rough estimate, a ton of the best Peruvian as equal to fifteen or twenty tons of good manure—both being *applied* in the best manner. There should be from ten to twenty times as much loam as guano, applied in as thin alternating layers as practicable. Bone dust or dissolved bone may be applied in a similar manner, but less care is requisite in providing large quantities of loam, except to dilute its strength. All these manures might, with greater convenience and perhaps better effect, be mixed with the stable manure compost heap; and if made long and rather flat, it could be pulverized and worked together best by means of a plow and harrow, and yoke of oxen. For accurate and specific experiments, to test the comparative merits of each kind of manure, they should of course be kept separate.

◆

Loss of the Plum Crop.

If any of your correspondents can give me a hint or two through your paper, in regard to plum trees, I should be thankful. Mine are fine trees, excellent grafts, but invariably drop their fruit before ripe; the leaves and trees are hearty looking, but I never have any fruit worth mentioning. G. Kingsland. *Belleville, N.J., August*, 24, 1853.

Undoubtedly the loss of the crop is the result of the punctures of that general and most destructive insect, the *curculio*, of which our correspondent may readily assure himself another season, if he discovers small *crescent-shaped punctures* in the young fruit, and larvæ or small worms in the fallen specimens. The redemedy is jaring the insects down on white sheets, by means of a sharp blow on the stump of a sawed limb, and then destroying them, according to the directions repeatedly given in most horticultural papers, and in the best works on the culture of fruit.

Schenck's August Pear.

We have been favored, through A. Fahnestock, (of the firm of Thorp, Smith, Hanchett & Co.,) of Syracuse, with fine specimens of this large and fine pear, received, as we understand, from the neighborhood of Philadelphia. It is a large, yellow, obovate, exceedingly melting pear, of pleasant but not high flavor. It is stated to ripen during the last half of August—probably a little later—north of its present locality. Its earliness, large size, and exceedingly agreeable qualities, render it, we think, a variety of much value. It is supposed to be a seedling of the Virgalieu. The specimens had a slight musty taste in consequence of the packing.

Seedling Plums.

Mr. E. Dorr of this city, well known for his devotion to fruit culture, has favored us with samples of one of his seedling plums, which he has named *Howard's Favorite*. It is rather large, roundish obovate, with a slight neck, stem an inch long, in a small cavity, suture indistinct, color a fine rich orange yellow, shaded with purplish red, and often with rich reddish purple spots, next the sun; flesh rich yellow, somewhat fibrous, exceedingly juicy, rather rich and sub-acid in flavor, adhering to the rather small stone. "Good," or "very good," not equal in flavor to the best; very agreeable, but comparing well with Imperial Gage; shoots smooth.

New Cherries.

Please inform me through the Cultivator, where I can obtain the Great Bigarreau and August Duke, described in your August Cultivator. Watson Lowel. *Romeo, Michigan.*

The Great Bigarreau may be had at the nursery of J. J. Thomas, Macedon, N. Y., raised from the original tree, and also in quantity, and of large size, of L. M. Ferris, of Coldenham, N. Y. The August Duke has not, that we are aware, been introduced into the nurseries, and we cannot furnish our correspondent the desired information.

Transplanting Strawberries.

Is it beneficial to move strawberry beds directly after they have done fruiting? A friend of mine says he has followed the practice with complete success, for a number of years. Where can I get some plants of a large kind that will hull itself in picking, the berries large and productive? K. Norris.

The best time, decidedly, for transplanting stawberries, next to early spring, is during that comparatively dormant season that immediately follows bearing. If the old leaves are cut off, and only the half opened new ones left, the plants being mudded at the root, the soil settled with water, and an inch of manure mulching applied, to prevent crusting, they will succeed admirably. The only strawberry that hulls itself completely in picking, is the *Alpine* and its sub-varieties; but it is small, and commonly but little esteemed on account of its deficient flavor.

◆

Mr. J. S. Gould has presented us with specimens of the *Lawton Blackberry*, grown in his garden in this city. Though grown on vines put out last spring, they were of large size, and promise to be very productive.

Preventing Gooseberry Mildew.

K. Norris of Bloomingburgh, states that he has tried successfully for two seasons, for preventing mildew on the gooseberry, the practice of "transplanting and separating, every March and November," the bushes in bearing, and inquires the cause. Preserving a young and thrifty growth by separating, pruning, cutting back, and high culture, is usually found the best preventive; but transplanting would tend to check growth. Mildew does not, however, commonly occur on very young bushes in any instance, and probably the means we have just mentioned would have been quite as efficacious. Some seasons are more favorable than others, when the growth and treatment are otherwise the same.

Girdling Fruit Trees.

Can you explain why girdling an apple-tree limb will cause it to bear? C. C.

In all growing trees, when the sap circulates freely, it favors the growth of wood and leaves, hence young, vigorous trees mostly produce strong shoots and sparingly of fruit; but when the trees are older, the vessels become more rigid, and impede the sap, and consequently the leaf or wood-buds are changed to fruit-buds, and heavier crops are borne. Whatever therefore, impedes the flow of sap, favors the production of fruit, girdling being one of these methods.

Markets, and Cost of Fruit.

It would be a very interesting inquiry to ascertain the actual amount of money paid out by the people of the United States for fruit, in those regions where planting and cultivation would be the only requisites for a plentiful supply at all times, and a surplus for market. And it would also be worth while, during this investigation, to make a careful estimate of the amount that would be likely to be used, if all could obtain cheaply in market, or by their own raising, whatever they might need—would it not be twentyfold at least the present quantity? In a single new State, (Wisconsin,) possessing comparatively a small population, and whose people do not probably feel disposed to pay heavy sums of money for luxuries, it is estimated by F. K Phœnix of that state, a gentleman very competent to the task, that "the direct tax, self imposed, for green and dried fruit, cannot be less, annually, than $300,000, which even then procures not one-twentieth part of a supply." We hear continual predictions of a glutted market of fruit —*when*, we ask emphatically, will it come? At the present rate, with the millions of trees set out annually, it seems on the contrary, to be constantly receding from us, the supply increasing actually less than the still more rapidly increasing and enormous demand in every direction.

◆

Large Plums and Nectarines.—I have plums that measure as follows: Washingtons, six and a half inches, Columbias, six inches, and Nectarines six inches in circumference. If there is any one in the Empire State that can produce larger plums, I should like to know who they are. R. T. Borden. *North-Easton.*

The Grazier

"Ayrshires as Milkers."

I notice by your Country Gentleman of the 25th, a statement of the dairy properties of certain Short-horn cows, for the purpose apparently, of eliciting information as to the comparative values of Durhams and Ayrshires for dairies.

Mr. Edward M. Shepard of Norfolk, in this, St. Lawrence county, is a breeder of Ayrshires, and while he has made no experiments with particular or individual cows, like your correspondent "P., of Sennett, N. Y.," which, by the way, is not a proper method of testing the value of breeds, unless the whole herd be taken, has yet permitted to be published in the papers of this county, at the solcitation of myself and other friends, trials of his *whole* herd, the substance of which is here submitted.

Mr. Shepard had 14 cows, Ayrshires and their crosses on natives, half-bloods, six heifers, *milking for the first time*—time, the third week in June—feed, grass only.

Allowing one cow for family use, and deducting 40 per cent from heifers, and his trial stood thus:

Cows,	8
Heifers 6, reduced to cows, is,	3·6
	11·6
Deduct one cow for family, is cows,	10·6

The product for the week was 12 lbs. 12 oz. per cow. The first week in July, feed grass only, and much affected by drouth, he milked twenty, *eight* of which were heifers, milking the first season, and this trial stood thus:

12 cows, less one for family, is,	11·
8 heifers, 40 per cent off, is	4·8
Full cows,	15·8

The product for the week, per cow, was 14 lbs. 13 oz. and a fraction over.

But, lest your correspondent might think my allowance for heifers too much, which, however, is considered a just allowance by the dairymen of this county, the result of the last trial, *without any deduction* for their being heifers, and four of them only two years old at that, was 12 lb. 5 oz. and a fraction per head, for the week.

I am advised by Mr. Shepard, that for the purpose of testing the merits of these breeds for the dairy, he will select some five or ten cows from this Ayrshire herd, and place them for some one week next autumn, or next June, against an equal number of any *other pure breed* of the same respective ages, owned by any one breeder or dairyman of the state. The cattle to feed upon grass only during the week, and for two weeks prior to the trial. The time to be notified through the Country Gentlemen. The time to consist of seven days, fourteen morning and evening milkings, each milking to be weighed, and each days product churned and weighed by itself, and the final test result to be in the aggregate, containing not over one ounce of salt per pound of butter.

Mr. Shepard will wait the pleasure of your correspondents. H. G. Foote, Secretary St. Law. Ag. Society. *Ogdensburgh, Aug.* 30, 1853.

Short Horns as Milkers.

I notice in your issue of the 4th, an inquiry as to the comparative value of Short Horns and Ayrshires, as milkers. I never owned an Ayrshire; but for the last fourteen years, having milked Short Horn grades, I send you the results of several trials made with them, previously remarking, that as we intend to make only just sufficient butter for family use, have been at no trouble to prepare a suitable "milk-house."

Cow No. 1, fourteen years old, made in one week, in the month of June, 9½ lbs. butter—again in October, made 9 lbs. 2 oz. same time; this cow was always fat.

No. 2, three years old, made at the rate of 12¼ lbs. per week.

Nos. 1, 2 and 3, made 33 lbs. in one week of the month of June.

No. 4, three years old, with her first calf, made 11 lbs. 2 oz. in six days—the feed of these cows was grass pasture and *nothing else.*

Gipsey 2d, thorough-bred, in the month of January, on hay feed, no roots or grain, gave 24 quarts of milk per day. The only trial ever made of the *quality* of this cow's milk, was during the season of 1850, when her calf was allowed to take one-half of her milk, no more, he weighed at seven months old, 700 lbs. P. *Sennett, N. Y.*

Good Milch Cows.

A writer in the Middletown (Conn.) *Sentinel and Witness*, urges upon the citizens and farmers of that vicinity, the necessity of forming an association for the improvement of the breed of Milch cows—a branch of improvement to which but little attention has as yet, been paid in this country. The great object of the principal breeders of cattle in England, has been to produce animals of fine form and symmetry, which will mature early, and fatten at the least expense, with little or no regard to the milking properties of the females. From herds bred for this purpose, most of our expensive importations have been made. The results have proved, in the highest degree, beneficial so far as the production of beef is concerned; and in a greater or less degree in the milking properties of our native cattle. But we want a breed of uniform good milkers; and we know of no field, which affords a better prospect of a fair reward, than the breeding of such a race; any individual or association which would undertake the work, would deserve the praise of the country. The writer above alluded to, says:—

"But we cannot ask any one to take shares in this, or any other project where money is wanted, without meeting the question, "Will it pay?" The answer may be gathered from what follows:—

A good Cow, to be worthy of the name, should yield, on the average, for the first 100 days after calving, 7½ quarts at a mess, or 15 qts. per day, amounting to	1,500
For the next 100 days, she should average 5 qts. at a mess,	1,000
For the succeeding 100 days, do. 4 qt. do.,	800
Total number of qts.,	3,300

—giving her a respite of 65 days before calving.

3,300 qts. of milk, at 3 cts. per qt., is very near $100

The cost of keeping may be reckoned as follows:

For pasturage, the season,	$12
2 tons hay,	26

800 lbs. corn meal, or its equivalent, ... 12— 50

Leaving a balance of, ... $50

or 100 per cent. on the cost of keeping, to pay for attention and expenses, without estimating the value of her calf, or the manure she may make. If the business be done on a *liberal* scale, we think there is chance for some profit. A cow that will do this, may be called *good*. It is common for persons keeping cows, to say, they will give 10 or 12 qts. at mess; but this is not always true—for not one in ten of the cows in Middlesex County, so far as the writer's knowledge extends, will average so much, for three successive months, with common feed. True, there some instances of much greater yield, but the *quality* is not the best. A gentleman of undoubted veracity, living within a mile or two of the city, assured me, a few days since, that one of his cows gave 56 lbs., (I think it was,) equal to 27 or 28 qts., daily. Her milk, however, was inferior to that from his other cows. Such cows are rare; but it is from the rarest and the best that a preserve,—if I may use the word,—of cows for breeding and for the dairy should be selected."

Great Sale of Imported Cattle.

An Association was, last year, formed in Northern Kentucky, for the purpose of importing the best stock which could be procured abroad. The sum of $25,000 was raised, and Messrs. GARRARD, DUDLEY and VANMETER, were despatched to England to make the purchases. They returned in June, bringing with them

25 head of Short Horn Cattle,
6 Southdown Sheep,
9 Cotswold, and 3 Leicester Sheep.
1 Cleveland Bay Horse.

These animals, with the exception of one Cotswold buck, which died on the passage from New-York to Kentucky, were disposed of at public sale, on the 18th of August, on the farm of Mr. BRUTUS CLAY, the President of the Association, in Bourbon county. We are indebted to the attention of a friend who was present, for the annexed account of the sale:

DURHAM BULLS.	Cost.	Sold for.
Young Chilton, 3 yrs, Mr. Warfield, Fayette co.,	$600	$3,005
Diamond, 3 yrs, Bedford & Co., Borboun co.,	630	6,001
The Count, 2 yrs, Mr. Gauff, Clark co.,	525	2,575
Orontes, 33 mo., Mr. Gray, Woodford co ,	630	4,525
Fusileer, 2 yrs, Mr. Scott, Franklin co.,	375	1,425
Senator, 16 mo., Messrs. Allen & Co., Fayette,	630	2,000
Belleville, 19 mo., Mr. Sutton, Fayette co.,	1,050	1,500
Challenger, 19 mo., Mr. Gauff, Clark co.,	450	4,850
Fortunatus, 20 mo., Mr. Martin, Clark co.,	220	1,800
Yorkshire Maynard, 17 mo., Mr. Taylor, Clark,	220	1,000
10 Bulls—average $2,868 10,		$28,681
DURHAM COWS AND HEIFERS.		
Lady Stanhope, 6 yrs, Mr. Clay, Bourbon co.,	375	1,500
Lady Fairy, 5 yrs, Mr. Warfield, Fayette co.,	525	1,100
Roan Duchess, 3 yrs, Mr. Brand, do	275	900
Goodness, 6 yrs, Mr. Coleman, do	520	2,250
Gem, 2 yrs, Mr. Vanmeter, Clark co.,	775	825
Equity, 17 mo., Mr. Walter, Woodford co ,	400	1,000
Necklace, 16 mo., Mr. Clay, Borboun co.,	260	805
Bracelet, do do do	260	750
Mazurka, 2 yrs, Mr. Gray, Woodford co.,	600	3,050
Lady Caroline, 2 yrs, Mr Clay, Borboun co.,	400	1,825
Duchess of Suth'land, 2 yrs, Mr. Brand, Fayette,	375	900
Maid of Melrose, 22 mo., Mr Humphreys, Woodford co.,	775	2,200
Muffin, 14 mo., Messrs. Smith & Co., Scott co.,	220	535
Orphan Nell, 9 mo, Messrs Hill & Gano, Borb'n,	225	1,000
Flattery, 21 mo., Mr. Duncan, Clark co.,	325	815
15 Cows and Heifers—average $1,282,		$19,230
COTSWOLD SHEEP.		
2 Rams—at $1,010 and $710,	1,125	1,720
6 Ewes—at $200, 270, 105, 221, 200 and 140,		1,136
LEICESTERS SHEEP.		
1 Ram at $50—2 Ewes at $52 each,	300	154
SOUTH DOWN SHEEP.		
3 Bucks at $755, $440, and $340, $1,535		
3 Ewes at $350, $230, and $180, 760	525	2,295
CLEVELAND BAY HORSE.		
Sold to Isaac Wright, Borboun co.,	1,000	2,800

Aggregate amount of sales, $56,016.

Our correspondent says—"the company assembled was very large, composed of the most respectable and wealthy farmers from every part of the State; and the excitement and competition very great indeed. Terms of sale were, negotiable notes at four months, payable in bank for the amount, and each purchaser to give bond in double the amount of the value of the animal purchased, that said animal shall not be taken away or removed from the State, within twelve months from the day of sale. I have no idea that any one of the animals will ever be removed from the State, as all were bought with the view of keeping and using them. From the unprecedentedly, and I will add *unwarrantably*, high prices that the stock brought, you will perceive that the stock holders have made a *large profit*."

Recent Importation of Stock.

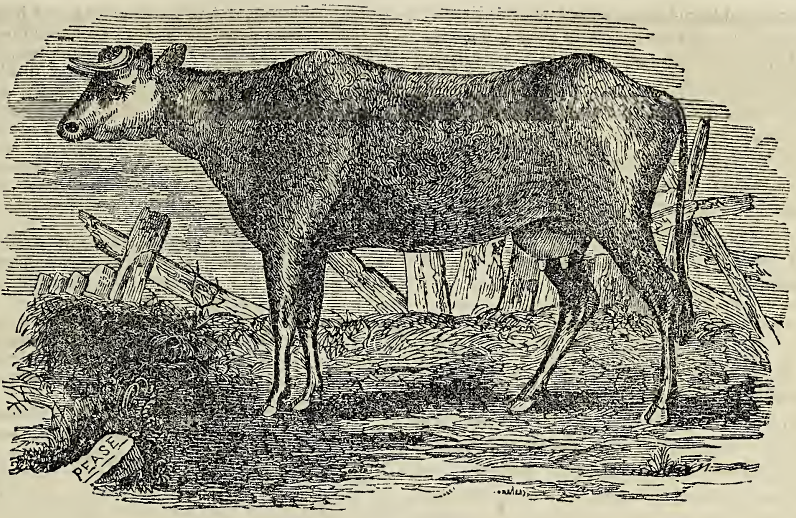
By the ship *Mary Carson*, having been seventy-eight days on her passage, there arrived two Durham heifers for Dr. HERMAN WENDELL of this city; four Durham heifers imported by GEO. VAIL, Esq, of Troy, for S. P. CHAPMAN of Madison county, and two thorough bred Deven heifers and one Devon bull, for GEO. VAIL, Esq, of Troy.

The Durhams imported by Dr. Wendell and Mr. Vail, are from the herd of Robert Bell, and are bred from Duchess bulls of the late Thomas Bates, Esq. The pedigrees of Dr. Wendell's are as follows: '*Lady Liverpool*," sired by 3d Duke of York, (E. H. B. 10,166;) dam Lily, by 2d Duke of Oxford, (9046;) "*Alice Maud*," sired by Grand Duke, (19,284;) dam Cicely, by Duke of Northumberland. These arrivals make a fine addition to Dr. Wendell's stock, in which are several heifers sired by Duke of Wellington, and Meteor, the premium bull formerly owned by Mr. Vail.

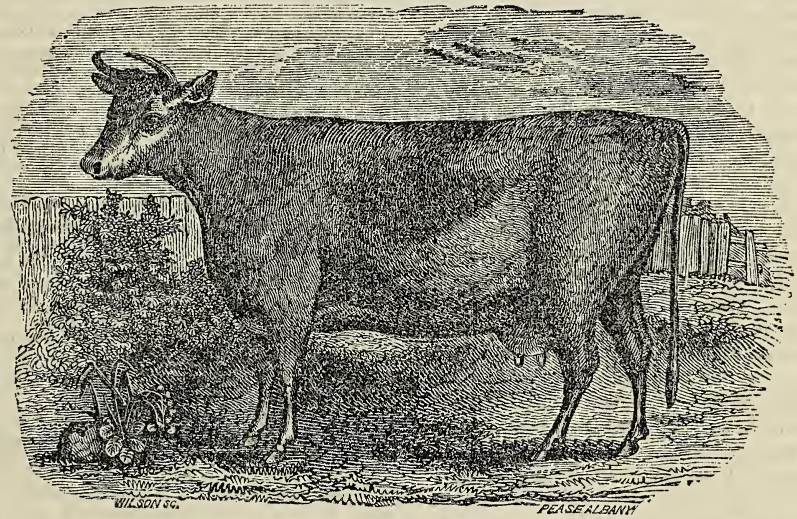
The following are the pedigrees of Mr. Chapman's heifers: "*Agate*," sired by 3d Duke of York; dam Annie, by 3d Cleveland Lad; "*Bright Eyes* 3d," sired by Earl Derby, (10,177), dam, Bright Eyes 2d, by Lord George Bentick; "*Frantic*," sired by 4th Duke of York; dam, Faith, by 4th Duke of Northumberland, and *Boukie*, (cow,) sired by 4th Duke of York, dam, Cicely, by Duke of Northumberland.

Mr. Vail's Devon heifers are from the herd of Lord Leicester, and the bull is from the herd of John T. Davy, the editor of the Devon Herd Book. We learn that Mr. Vail has concluded to collect a small select herd of Devons for his farm, as breeders.

The same vessel also brought two Short-horn heifers for Lorrilard Spencer, Esq., of Westchester; a Short-horn bull, "Harry Lorrequer," sold at Mr. Fawke's sale for 130 guineas; also two other valuable young bulls, "Liberator" and "Squire Gwynne 2d," bred by J. S. Tanqueray, of Henden, near London, as well as several others from other breeders; and a lot of Cotswold sheep. These last are for parties, we understand, at Boston and in some of the western states.



OLD JERSEY COW.



IMPROVED JERSEY COW.

Jersey or Alderney Cattle.

This breed of cattle has been known to some extent in this country for many years. The cows have always been noted for the richness of their milk, and for the high flavor and golden color of their butter. Gentlemenliving near cities, have frequently imported them for the purpose of supplying cream and butter for their own tables. A great objection to the general spread of this stock in this country, has been their want of sufficient hardiness for our climate. This was a fault to which the old breed of Alderney was particularly subject. It was a defect which lessened the value of the stock, even for their native region. The cows were of ten ill-shaped, rough and ragged, with poor constitutions, and little tendency to fatten; so that, though they would give a good quantity of rich milk, they required the strictest care, were large consumers of food, and were comparatively valueless at an early age.

Within the last twenty years, a great improvement has been made in this breed of cattle; the defects above mentioned, have been, in a great degree, bred out, and the animals, without having lost any of their value for the dairy, have been made to combine other qualities by which their aggregate value is greatly enhanced.

Nothing could show the improvement which has been made in this breed of cattle more strikingly, than the contrast presented by the above figures. Fig. 1 represents the Old Jersey Cow, and Fig. 2 is a portrait of "Beauty," a prize cow, four years old, bred by Col. LeCouteur. She has produced 11 lbs. 13 oz. of butter weekly—giving 19 quarts ofmilk daily.

Within a few years past, cows of the improved Jersey or Alderney breed have been imported into this country. R. L. Colt, Esq. of Paterson, N. J., has a fine one, purchased of Col. LeCouteur, which has been shown at the fairs of the N. Y. State Ag. Society; Mr. J. A. Taintor, of Hartford, Ct., has two, selected by himself in Jersey; Frs. Rotch, Esq. of Morris, Otsego county, N. Y., has lately imported one; Mr. Peter Lawson, of Dracut, Mass., imported several, within the past few years, for himself, and for the Trustees of the Massachusetts Ag. Society, and other gentlemen in the vicinity of Boston. They are spoken of in high terms by those who have seen them.

Docking Lambs.

In the July number of the Cultivator, S. W. Jewett has given what he calls a safe method of docking lambs. It is simply this: "Slit down the skin lengthwise, about about an inch. The artery, if in a lamb, will be seen the size of common knitting-needle. Draw a thread of waxed linen or silk under the artery, with the common straight needle, or one a little crooked at the point is better. Tie up tight before you cut off the tail; which you will sever just below the knot. This is all done very easily, and with very little loss of blood. You may sprinkle a little dust or pulverized alumn on the wound to advantage."

Now I have no doubt that this is all very easily done by Mr. Jewett, or any other person who chooses, but is it so easy for the poor lamb to suffer it. But since Mr. Jewett has given his method of cutting off lambs tails, if he would give his reasons for so doing, and the advantages arising from it, I would be very thankful.

For my part, I am opposed to docking any animal, and sheep in particular, and I will give some of my reasons for it. The first is this, a long tailed sheep is of some advantage to the wool-grower, on account of the wool on it. And in the second place, it is of great advantage to the sheep, especially when flies are plenty. And in the third place, a long tail looks better than a short one. And in the fourth place, I think docking is a very barbarous practice, and one I hope will be soon be abandoned. A Farmer. *Alleghany Co., Pa.*

The State Fair at Saratoga Springs.

The recent State Fair was held under peculiar disadvantages, independently of the difficulties of its position from the center of travel. The frequent heavy and continued showers, greatly retarded the necessary preparations, some of which, as a matter of necessity from this cause, remained unfinished on the arrival of the appointed time, and the same cause deterred a larger number of exhibitors from forwarding articles of exhibition. In spite of these disadvantages, however, some departments of the show came fully up to those of any former state fair, and in some respects exceeded previous ones. The uniform excellence of the animals was remarked by all, not only in the large number of fine native, grade, and high-bred specimens, but also the high perfection which some of these high-bred animals had been made to reach. Without in the least degree disparaging the many exhibitors who showed eminent skill as breeders, and in their selections, we cannot omit to give special commendation to the large collection of cattle, sheep and swine, which were brought to the grounds by L. G. Morris, the President of the Society; and which, we think, taken for its extent and high merit, has never been equalled by any one individual on any former occasion. In the department of horses, likewise, a feature of extraordinary interest was furnished in the large and beautiful collection of the descendants of the celebrated Black Hawk, which was altogether superior to anything of the kind in the show of this breed of horses that has ever taken place in the state.

The exhibition of fruits was of a very high character, although very deficient arrangements were made for their display. The mechanical and domestic departments were quite limited.

Before proceeding to notice the separate objects, it is due to the officers of the Society to express special commendation for the selection of a very fine piece of ground, covered in part with a grove, and of so dry a soil that not the least inconvenience was experienced from the enormous quantity of rain that had lately fallen; and also for the ample and comfortable provision made for the animals, in the long and well arranged sheds erected for this purpose.

Cattle.—The display was marked with more *uniform* excellence than we remember to have seen on any previous occasion, and fewer poor animals. Among the Durhams, the fine animals from Lewis G. Morris and N. J. Becar, held a very conspicuous place for their merit and large number, and included several imported animals of great excellence. There were also many fine animals from a considerable number of other exhibitors. E. P. Prentice of Albany, had a beautiful collection of Ayrshires, and E. Corning, Jr., of Albany, and Remington & Bowen of Cayuga county, the best Herefords. A large and fine exhibition of Devons was made by S. H. Colby, and Remington & Bowen of Cayuga county. G. Vail of Troy, A. Stevens of Genesee, W. P. & C. S. Wainright of Dutchess county, and J. H. Caswell of Otsego; and conspicuous among the whole were the fine animals of this breed from L. G. Morris.

We observed a beautiful and symmetrical pair of three year old steers, and also an unusually fine yoke of five year old oxen, from George Sheldon of Sennett, Cayuga county, both a fine deep Devon red. The best ten yoke was from E. & H. Sheldon of the same place. Fine grade cattle were shown by O. Howland of Cayuga county, and by others.

Swine.—The exhibition was small, but contained animals of great excellence, among which the beautiful Suffolks, and the Essex and Berkshire animals from L. G. Morris, attracted great attention.

The Sheep were numerous, and many of them of great merit. E. Gazley of Dutchess county, exhibited a very superior imported Oxfordshire ram, said to weigh about 400 lbs. A very fine exhibition of Leicesters was made by Hungerford & Brodie of Jefferson county; some excellent animals were presented by J. A. & D. W. Rathbun of Springfield, Otsego county, and by several others. The show of Southdowns from L. G. Morris, Z. B. Wakeman, and others, was of the highest character, and great eagerness was shown by the crowd to see the extraordinary Southdown ram recently procured from the flock of Jonas Webb, by L. G. Morris, and which we have already noticed in a former number of this journal. Greene & Pease, West Cornwall, Vt., exhibited about fifty French Merinos, which attracted much attention. F. W. Dean, of the same town, had twenty-five Spanish Merinos, and George Campbell of Westminster West, Vt., had pens of Silesian Merinos and their crosses. Among the exhibitors of fine wool sheep in this State, were Joseph Haswell, of Rensselaer county, C. W. Hull, of New Lebanon, very fine Saxons, and Peleg Weeden, of Preston Hollow, full and half blood French Merinos.

There was a fine display of Poultry; the largest and best exhibitors of which were J. T. Andrew of West Cornwall, Ct., D. P. Newell of Rochester, and Wm. H. Southwick of New-Baltimore—the latter we regarded as a particularly choice assortment. Most of the collections were quite miscellaneous in their character, embracing the most of known breeds, in which the East India fowls largely predominated.

Implements.—The collection of agricultural implements was moderate in extent. The largest exhibitors were Emery & Co., of Albany, and Eddy, Dyer & Co., of Union Village, Washington Co. A new straw-cutter, (Daniels' patent) was exhibited by the latter, which promises to be one of the best machines for cutting short, that we have met with, in the ease and rapidity of its operation, and its small liability of becoming deranged by use; although its high price ($18 and $20) will be a real objection to small farmers. For cutting an inch or more long, and for cheapness, we saw nothing better than the old green-hide cylinder machines, made by Ruggles & Co., Emery & Co., and others.

The only reapers observed, were Atkin's Automaton, and Emery's new machine. The former we have repeatedly noticed in this journal, and is becoming well and favorably known; the latter is yet new, and in a great measure untried, but it is remarkable for its ingenuity and simplicity.

A number of railroad horse-powers were shown, wheat drills, plows, corn shellers, threshing machines, &c., which showed the constant and gradual improvement which is going on in our farm-machinery. Emery's and Dederick's Hay Presses were new to most persons.

The Domestic Manufactures did not present an extensive or showy collection, but contained some articles of substantial value and real utility, which we could not but regard as of much higher merit than all the highly wrought specimens of ornamental needle-work, which too often show more of a waste of valuable time than of genius or even skill in the operator.

Flowers.—Among the most brilliant objects were the fine specimens of dahlias. A rich and beautiful collection was shown by E. L. E. Smith, of Mechanicsville, Saratoga county, and unlike some other collections, the sorts were all labelled. Another handsome labelled collection was furnished by J. Battey of Clinton county. Ellwanger & Barry, and Frost & Co., of Rochester, contributed many fine roses and verbenas; smaller miscellaneous collections of flowers were furnished by a large number of persons. We observed a large number of flowers, mostly annuals, from J. T. Van Namee of Pittstown.

Among the floral ornaments and floral structures, we observed the same general want of taste that we have had occasion to notice in our previous reports of fairs, viz, a want of fitness in the use of materials for structures. Columns, obelisks, and temples are objects too permanent and massive in expression to build up with such light and decorative materials as flowers. Even for urns and baskets, flowers can not with propriety be used for any other purpose than filling or ornamenting them, but not of forming the material of which they are constructed.

Vegetables.—The show of vegetables was small—some of the best were contributed by N. Culver of Wayne county, S. Backus of Rochester, and P. Railly of Saratoga Springs. There was an interesting display of the new South American potatoes recently raised from seed by C. E. Goodrich of Utica. Still more limited (in the same building) was the exhibition of butter and cheese, although apparently of fine quality. At the same place we observed among other samples of grain and seeds, some very fine wheat, corn, and other grains, from O. Howland of Cayuga county.

Fruits.—The collections of fruit were extensive and valuable. Ellwanger & Barry of Rochester, took the lead of all others, and exhibited 175 varieties of the pear, some of which were rare and valuable sorts. We observed among these fine specimens of Beurre Superfine, Beurre Clairgeau, and Duchesse d'Orleans, and as instances of the large size from high cultivation to which many of their specimens had grown, we found the Belle Lucrative and Beurre Gris d'Hiver Nouveau, about three inches in diameter, and the same in height. J. Morse, of Cayuga Bridge, presented as usual a fine collection of fruit, consisting of over forty sorts each, of pears and of apples, and twenty of peaches; Thorp, Smith, Hanchett & Co., about the same number; D. T. Vail of Troy, a large and rare collection of pears, and large contributions of fruit were made by Wilson, Thorburn and Teller of Albany, T. C. Maxwell of Geneva, E. S. Haywood of Rochester, A. Saul & Co., Newburgh, and others. The best contribution of plums, was from E. Dorr, of Albany. An unusual deficiency existed in relation to this fruit. A most extensive and valuable collection of pears, consisting of 151 varieties, was sent by Hovey & Co., of Boston.

In comparing the more recent with the former exhibitions of fruit at our State Fairs, one great improvement was evident, besides the large introduction into general cultivation of many of the finer new and old sorts—this is the correctness in nomenclature, mistakes being much less frequent than formerly, although in some of the smaller collections we observed many errors.

Horses.—On the last day of the fair, at 10 o'clock, the Black Hawk horses and colts entered the large ring, in presence of a large concourse of spectators. These animals were more than thirty in number, about twenty-five of which were attached to sulkies, and driven round the ring. Most of them were of great beauty and excellence, and they excited the admiration of the spectators, as nothing equal to this show had ever been presented before. A number of matched horses were also exhibited, some of them of high merit, among which we observed especially a large and beautiful span of bays, from J. Barber of Auburn. There were some other fine horses which we had not an opportunity to examine to advantage.

At. 12 o'clock of the concluding day of the Fair, a large audience assembled under the speaker's tent, to hear the annual address from William C. Rives, of Virginia. This address was occupied with the importance, dignity, value and profits of agriculture, and with numerous examples of the high tribute of respect which the greatest minds had practically awarded to it in all ages; and it was characterised with the ability, energy, chasteness, and eloquence, to be expected from its eminent author, who is himself a practical farmer, and skilled in the different departments of modern agriculture.

Pomological Meetings.—Meetings of the principal fruit-growers present at the fair, were held on Wednesday and Thursday evenings, which proved highly interesting, from the numerous facts elicited on various pomological questions. We took notes of these discussions, but are under the necessity of deferring their publication until our next number.

Poultry Society.—A convention of poultry dealers, breeders, and fanciers, was held on the 23d, at which "The New-York State Society for the Improvement of Domestic Poultry" was organized. After the adoption of the constitution, D. S. Heffron of Utica, was elected president; E. E. Platt of Albany, and M. Vasser, Poughkeepsie, vice-presidents; R. C. McCormick, Jr., Jamaica, cor. secretary; R. U. Sherman, Utica, rec. secretary and treasurer. A board of managers was also elected, consisting of N. S. Smith, Buffalo; A. A. Hudson, Syracuse; Geo. Anderson, Albany; D. P. Newell, Rochester; W. H. Southwick, New-Baltimore; D. W Van Slyke, Lyons; B. B. Kirtland, Albany; T. D. Miner, Clinton; Dr. Cole, Claverack; and Dr. S. Childs, New-York city. It was resolved to hold an exhibition of poultry during the ensuing winter, the time and place to be designated hereafter.

The receipts at the State Fair were, we hear, but not officially, about $6,000.

◆

American Forest Trees.—In North America, we have 50 species of the oak, while all Europe has only 30 species. North America has 40 species of pines and firs, the United States over 20, while Europe has but 14 species.

Notes for the Month.

Sale of Earl Ducie's Short Horns.—The stock of the late Earl Ducie of Gloucestershire, England, has recently been sold at auction, at prices unprecedented in the record of cattle sales, excepting the recent Kentucky sale. The animals sold comprise some of the purest blood in the kingdom, and a considerable number were purchased by American gentlemen.

The Short-Horn herd, consisting of sixty-two lots, realized close upon ten thousand pounds, making an average of upwards of one hundred and fifty pounds each animal. The direct Duchess animals stood highest in the sale, which, it will be recollected are descended from the herd of the late Thomas Bates. A red four year old cow, (Duchess 64) was sold for six hundred guineas to Mr. Thorne of Duchess Co; a roan heifer, three years old (Duchess 66) was bought by Col. Morris for seven hundred guineas. A heifer calf of the latter, some six or seven weeks old, brought three hundred and ten guineas—a heifer and her calf selling for more than a thousand guineas. The following animals were purchased by American breeders:

Bulls.—*Duke of Glo'ster*, red: calved Sept. 14, 1850; got by Grand Duke; dam Duchess 59, for 650 guineas to Mr. Tanqueray, Col. Morris and Mr. Becar of New York.

Fourth Duke of York, roan, calved Dec. 22, 1846; got by 2d Duke of Oxford; dam Duchess 51, for 500 guineas to Mr. Bell for Gen. Cadwallader of Philadelphia. Thirteen bulls and bull calves brought £2,494 16s. being an average of £191 18s each—$926.

Cows and Heifers.—*Duchess* 66, rich roan, calved Oct. 25, 1850, got by 4th Duke of York, for 700 guineas to Col. Morris, President N. Y. S. Ag. Society. *Duchess* 59, roan, calved Nov. 21, 1847, got by 2d Duke of Oxford, for 350 guineas to Jonathan Thorne of Dutchess county. *Duchess* 64, red, calved Aug. 10, 1849, got by 2d Duke of Oxford, for 600 guineas to Mr. Thorne. *Duchess* 68, red, calved Sept. 13, 1852, got by Duke of Glo'ster, for 300 guineas to Mr. Thorne.

There were 49 cows and calves sold, which brought £6,867, making an average of £140 2s. 10d each, upwards of $680.

On the following day the sale of sheep took place. Eighteen pure Southdown rams and ram lambs brought £326 10s.; 79 lots of ewes, wethers and wether lambs, £2,176 5s.—together, £2,502 15s.

The Cochin Chinas followed. The 64 lots realized £340 4s. "Sir Robert," the celebrated prize bird, fetching 27 guineas; Lord Ducie gave 40 guineas for him in February last.

Higher Price Still.—The Mark Lane Express of Sept. 5, states that Mr. Thorne of Dutchess Co., has purchased the celebrated bull "Grand Duke," of Mr. Bolden, near Lancaster, for the large sum of $5,000. This bull was purchased by Mr. B. at the great Kirkleavington sale of Mr. Bates' Short Horns. He was the sire of the "Duke of Glo'ster" and "Dutchess 66," alluded to above as having been purchased by Col. Morris and others.

Sheep for Pennsylvania.—Mr. James Slocum of Brownsville, Pa., has recently purchased a buck and four ewes from the superior flock of Merinos of Stephen Atwood, of Watertown, Conn. Also a buck and ten ewes of Mr. Chapman of Brandon, Vt. These were descendants from Mr. Atwood's flock, which is well known as one of the best of the old Spanish Merinos in the country. The fine sheep of the Messrs. Hammond, to which was awarded the first prize at the Vermont State Fair, came originally from Mr. Atwood; and if those purchased by Mr. Slocum equal these, they will will not fail to attract attention, even in the fine wool-growing districts of Pennsylvania.

French Merinos.—Two small lots of French Merinos, from the flocks of S. W. Jewett of Vermont, recently passed through this city, on their way to Alabama and Missouri, selected by T. Vivion and E. W. Jenkins, Esq. It would seem that the "Sunny South" are about to test the value of this large race of fine wooled sheep.

Bars and Gates.—"A farmer in perspective," will accept our thanks for his drawing and description of a set of bars for a fence, that shall be secure from displacement by the horns of cattle, although not adapted to the object of our paper. His contrivance will doubtless accomplish the purpose, but it is quite complex, and we are satisfied that the same amount of labor and material would furnish a good cheap self-shutting and self-fastening gate, and be incomparably more convenient; for a gate is opened and shut with a single movement of the hand, in less than one-tenth of the time required for the removal of a set of bars for the passage of a wagon. There is no field of a farm that is not entered many times in a year, and some of them more than a hundred times; and if any one is not satisfied with the waste of time and labor which bars occasion, let him remove and replace them for a hundred times in immediate succession, instead of the usual way of distributing the labor through the year, and he will probably become quite satisfied to resort to gates.

A Fine Specimen of Wheat.—We were shown at the ware-rooms of Emery & Co., in this city, a very fine specimen of Soule's White Chaff wheat, raised by Joseph Watson of Clyde, Wayne county. A sheaf, which we were assured was a fair sample of the entire field, showed the stalks of uniform height, and every head perfectly filled. The grain is plump and bright, entirely free from any foul substance, and weighs 63 pounds to the bushel. Mr. Watson is already known as among the best farmers in the state, and we are glad to notice so choice an evidence of his skill in wheat-growing.

Large Hops.—Mr. D. B. King of Waterford has, exhibited to us two samples of hops, taken from the same vine, but from different branches. One sample was taken from a branch trained upright to a pole in the usual manner—the other from a branch trained on a cord, at an angle of about 45 degrees. The flowers from the latter, were nearly three times as large as those from the former, some of them being two and a half inches in length. Mr. King attributes the difference entirely to the method of training. The leaves of those trained on the cord were fresh and vigorous, while those on the pole were completely riddled by insects, and he thinks the insects could not attach themselves to those on the cord.

To Clear Smut from Seed Wheat.—Make a strong brine, and wash the seed in it for five minutes, and repeat the process in another brine. Then dust the whole with air slacked lime. The brine clears out and destroys the smut, and removes all small weed-seed.

Fair in Rensselaer County.—The fair took place at Lansingburg, Sept. 12, 13 and 14. We are informed that the number of entries were not so large as on former occasions, though the character of the exhibition was fully equal to any previous show. Prominent among the Cattle, were the Devons recently imported by Geo. Vail, Esq., and which in spite of their long voyage, showed evident marks of high-breeding. The show of Horses was not very large, but embraced some fine animals. The rain diminished the attendance very materially the last day; still a goodly number were present to listen to the address, delivered by B. P. Johnsohn, Esq. We did not have the pleasure of hearing it, but we are informed that he was listened to with interest, and frequently received the applause of his audience.

The Wheat Insect.—This insect, whose ravages are gradually extending west, has been found, we believe, uniformily to commit the least injury where early ripening varieties have been sown, and where the crop has been put in early, so as to mature before the insect is ready for the assault. Farmers whose crops have ripened soonest have not lost a tenth, while others of late maturity have been more than half destroyed.

Yield of Broom Corn.—Broom corn yields from 300 to 1000 pounds of brush per acre, average, say 500—the price ranging from three to ten cents per pound. The seed ripens in the Northern States about half the seasons. Twenty-five to fifty bushels are a common crop, but sometimes over a hundred. The price of the seed 25 to 35 cents.

Depth of Roots.—Linus Cone, of Michigan, states in Moore's New-Yorker, as the result of all his examinations, that he has invariably found the roots of grass, grain, vegetables, fruit and forest trees, occupying *all the soil*, no matter what was its depth. He has taken out stumps where the roots penetrated a hard clay more than eight feet, and has gathered wheat roots by the handful, in a drain more than three feet beneath the surface. He hence infers that the deeper the soil can be plowed, and rendered friable and fertile, the better.

Water in Peat.—The importance of placing peat and swamp muck in a position to drain and dry thoroughly after digging, and before drawing, may be well understood when it is stated that usually from 80 to 90 parts out of a hundred are water, as commonly seen in a moist state, fresh and black from the swamp.

Super-phosphate of Lime.

Messrs. Editors—Can you inform me what are the ingredients of "Super-phosphate of Lime?" and something of the manner of manufacturing it? If you cannot, can you refer me to some one that can? I suppose there is nothing private about it. S. R. Holmes. *Hadlyme, Ct., August* 25, 1853.

Phosphate of lime, as found in bones and minerals, is insoluble in pure water, while super-phosphate of lime is readily soluble. The phosphate contains 48½ per cent phosphoric acid, and 51½ lime. Super-phosphate contains 71½ phosphoric acid, and 28½ lime. The object of the manufacturer is to convert the one into the other. To do this, he must abstract 32 pounds of lime from each 100 pounds of phosphate. This he accomplishes by adding 45 pounds of pure sulphuric acid, which takes away the 32 pounds of lime, forming sulphate of lime, while the 30 pounds of phosphoric acid *set free*, immediately unites with the undecomposed phosphate, forming the desired super-phosphate of lime. Fresh bones alone do not make a good *commercial* super-phosphate. It is not dry enough to put into bags. Nevertheless, it is a better *fertilizer* than super-phosphate made from animal charcoal, mineral phosphate, &c.

The greatest difficulty in making super-phosphate is to get the bones, animal charcoal, or any phosphoric compound that may be used, *ground sufficiently fine.* In the principal English factory, they are first passed through cast iron crushers, and then through differently set stone mills, revolving with great rapidity, till the phosphate is reduced to an impalpable powder.

Animal charcoal, at present, is much the cheapest source of phosphates in this country. It must be finely ground, made into a thin paste with about 80 per cent of water, and then be thoroughly stirred with 50 lbs. sulphuric acid, (sp. gr. 1.7) to each 100 pounds of dust. With coprolites, 60 per cent of acid is required, in consequence of the large quantity of carbonate of lime they contain, which of course has to be converted into a sulphate, before the acid can act on the phosphate. The vessels in which the mixture is effected should be lined with lead, as this metal is not corroded by sulphuric acid.

If you wish to convert fresh or boiled bones into super-phosphate, they must be crushed as fine as possible, moistened with about half their weight of water, and then 37 per cent of sulphuric acid, (sp. gr. 1.7) added, and the whole well mixed.

A superior article is obtained by mixing about 100 pounds at once, in a wooden or leaden vessel, throwing it out into a heap as soon as mixed. We have, however, made a good super-phosphate by placing the bone-dust on a wooden floor, wetting with water, and then adding the acid at intervals, continually turning over the heap, so as to well mix the ingredients. This is much the cheapest way. S.

Clay Soils.—The remedies for the inconveniences and defects of clay soils, are—thorough underdraining; coarse manuring; the application of sand, when not too expensive; autumn plowing; and, on a small scale, or for gardening purposes, paring and burning.

Albany Market, September 24, 1853.

FLOUR AND MEAL—The demand for Western and State Flour is rather more active at an advance of 6a12½c per bbl. on the prevailing prices of yesterday. There is no speculative movement, and the sales making are for home consumption and the supply of Eastern and River market places. The sales of the morning reach 1200 bls. at $6,12a6,25 for common to good State; $6,12a6,50 for mixed to fancy Michigan and Indiana and common to good Ohio; $6,50a6,75 for fancy Genesee and extra Western; $6,75a7 for extra Genesee. Corn Meal is firm and in request at $1,56a1,62.

GRAIN—With limited receipts, and a pretty active home and eastern demand for prime samples of *WHEAT*, better prices have been realized. Sales 1,800 bu. prime Genesee at $1,46½ 2,700 bu. on p.t. At the close very prime samples were held at $1,48. *CORN* is rather firmer with a good local and eastern demand. Sales 5.700 bu. Western mixed at 80a81c., the latter figure for lots at the road. *BARLEY* is in good request and the market rules very steady and firm. The receipts are fair but not large. Sales 14.000 bu. including 3,500 bu. prime two-rowed to arrive soon at 78c. and the remainder four-rowed at 84c., part here and to arrive soon. *OATS* are buoyant and in active request at very full prices. Sales 13,000 bu. state at 47c. No Western on the market

CATTLE MARKET.

ALBANY, *Sept.* 26.—W. W. Woolford's Bull's Head, Washington street.

Beef Cattle—567 at market. Prices—Extra, $7; first quality, $6,50; second, $6; third, $5a5,50.

Cows and Calves—18 in market. Prices from $25a30a35. All sold.

Sheep and Lambs—1208 in market. Prices of Lambs $1,75, 2, 2,50a2,75. Prices of Sheep, $2,50, 2,75, 3, 3,25, 3,50a4.

Hogs—Few in market. Prices per cwt. $5a5,50, and one choice lot at $6.

Remarks—The market is firm and steady.

CAMBRIDGE, *Sept.* 21, 1853—At market 2701 cattle.—About 1800 Beeves, 901 Stores, consisting of Working Oxen, Cows and Calves, yearlings, two and three years old.

Market Beef—Extra $7½a7¾ per cwt: first quality $7a7¼; second $6½a6¾; third $5½a6; ordinary $4¼a5.

Veal Calves—$7, 9a13—very scarce.

Stores—Working Oxen—$109, 118, 129, 136, 142a172.

Cows and Calves—$25, 32, 36, 44, 52a68.

Sheep and Lambs—6903 at market. Extra, $5, 5½, 6a8. By lot, 2½, 2,67, 3, 3¼, 3½, 3¾a4½—quick.

Swine.—Wholesale, still fat hogs 5½, and hard corn fed 6c per pound.

Choice Fowls.

GENTLEMEN who may be desirous of procuring the best and largest China Fowls in this Country—Cochin China, Black, Brown, Buff or White Shanghaes. Also a few pair of Black Spanish. All these fowls are from the best importations. All orders promptly attended to. Address post-paid 56 Schuyler street, Albany, N. Y.

October 1—m1t*. GEORGE ANDERSON.

A Desirable Country Residence.

MY old Homestead farm (118 acres) is for sale. For particulars, see Country Gentlemen No. 7, 8, 9, 10, or the Cultivator for March. Payments accomodating.

DAVID THOMAS.

Greatfield, near Aurora, Cayuga co., N. Y. Sept. 15.

ANDRE LEROY,

Nurseryman, - - - - - Angers, France,

HONORARY AND CORRESPONDING MEMBER, &c., of all the principal Agricultural Societies of Europe and America, begs to inform his friends, and the public in general, that he has just published his Catalogue for 1853, which is the most complete one ever made. All the prices and required information for the importation of all kinds of Trees, Shrubs, Evergreens, Stocks, Roses, &c., will be found in said Catalogue, which can be had free of charge, on application to the undersigned, who will receive and forward all orders, and attend to receiving and forwarding of the trees ordered, on arrival here. It is useless to add that Mr. LEROY possesses the largest NURSERY on the Continent. His experience in putting up orders for America, and the superior and reliable quality of all his trees, &c., is too well established to require any further notice. Orders should in all cases be sent to the undersigned in the fall, with information when the trees are to arrive here, and how they are to be forwarded.

E. BOSSANGE,
Sept. 29—m3t. 138 Pearl-st., New-York.

A Small Farm For Sale,

THREE miles south-west of the village of Macedon, in Wayne co., N. Y., consisting of about 56 acres of excellent land, three-fourths good wheat soil, and the remainder fertile pasture or meadow, with about five acres of woodland. It has a two story dwelling, the upper part unfinished, a barn, granary and corn house, and a never-failing spring of water. The price if sold soon, is fifty dollars per acre. A portion, or the whole, may be paid when possession is given, the first of April next. For further particulars, apply to the subscriber personally, at his residence in Macedon.

Macedon, Sept. 15, 1853. J. J. THOMAS.

Osier or Basket Willow.

THE subscriber will have for sale, to be delivered this fall or next spring, about 50,000 Willow Sprouts of the growth of this season, suitable for propagation or for baskets. Each sprout will make from four to five cuttings for planting.

C. N. BEMENT, 341 Broadway, Albany.

Aug 11—w1am4m.

Country Residence.

FOR sale, a most desirable Country Residence, containing about twelve acres of land—a sandy loam—in a high state of cultivation, within three quarters of a mile of the principal business street in the city of Scenectady. On the premises is a large house 24 feet front by 70 in depth, replete with every necessary convenience; attached to the same, are all the necessary barns, out-houses, &c. The garden contains a large number of choice fruit trees, consisting of Apple, Cherry, Pear, &c.; also a number of evergreen and deciduous Ornamental Trees, together with a large quantity of Grape vines, Roses, new and rare Shrubbery. The fences are mostly new, and the house is in good repair, and has recently been fitted up as a residence for the proprietor, but other engagements render it necessary to dispose of the same. Price $2,500—less than the actual cost of the improvements. Possession given immediately; title perfect. Inquire of

C. REAGLES,
Union Gardens and Nurseries, Schenectady.

September 1—m2t.

Albany Tile Works,

Corner Patroon and Knox Streets, Albany, N. Y.

DRAIN TILE of the following descriptions and prices, suitable for land drainage, always on hand, in large or small quantities, of the first quality, delivered at the Docks and Railroad Depots free of cartage.

Horse Shoe Tile.

4½ inch calibre, $18 per 1000 feet.
3½ " " $15 "
2½ " " $12 "

Sole Tile or Pipe.

3 inches calibre, $18 per 1000 feet.
2 " " $12 "

Horse Shoe Hand Tile, 8 inches calibre, for drains around dwellings, at $8 per 100 feet. Sole Tile, 4 inch calibre, for sink drains, at $4 per 100 feet—9 and 6 inch square, polished face Floor Tile, less than one-fourth the cost of marble, for basement floors and cellar pavements—9 and 6 inch square Bakers' Tile, for oven bottoms. Orders from a distance will receive prompt attention. A. S. BABCOCK.

Albany, April 14, 1853—16—13t—c6m.

Albany Drain Tile Works,

No. 60 Lancaster Street, Albany, West of Medical College.

THE subscriber, successor to JOHN GOTT, formerly A. S. BABCOCK & CO., is prepared to furnish DRAINING TILE of both Horse Shoe and Sole patterns, at from $12 to $18 per 1000 pieces. The tile are more than a foot in length, and fully equal to any of American or Foreign manufacture. They are so formed as to admit water at every joint, and drain the land perfectly from 12 to 20 feet on each side, according to the nature of the soil.

Also, LARGE TILE for drains about dwellings, yards, &c., at from $4 to $8 per 100 pieces. Tile delivered at the docks and railroads free of cartage. Practical drainers, for laying Tile, furnished if desired.

more durable than brick drains.

Full directions for preparing ditches, laying tile, &c., will be sent free to those addressing the subscriber, post-paid. The tiles can be sent safely any distance. Orders are respectfully solicited. DAVID CALLANAN.

Sept. 15—w&mtf. Albany, N. Y.

Orchard Grass.

3000 BUSHELS Orchard Grass, handsomely cleaned, and for sale at the Western Agricultural Warehouse of MILLER & SHREVE,

August 25, 1853—w3m Louisville, Ky.

FRUIT TREES,
Ornamental Shrubs, Flowering Plants, &c.

J. J. THOMAS has for sale at his Nursery, Macedon, N. Y., a fine and select collection of Fruit Trees, propagated from the BEST PROVED SORTS, consisting of:—

Apple Trees,		....	at 20 cts	each,	$15	per 100.
Peach,	do	large,..........	20	do	15	do
do	do	1 year from bud,	15	do	12	do
Cherry,	do	with fine heads,	31	do	25	do
Pear,	do	standards,......	50	do		
do	do	dwarfs,........	37	do		
Plum,	do	....	37	do		

Besides the smaller fruits, as Strawberries, Grapes, &c.

For those who desire it, careful selections will be made by the proprietor, of the different sorts, so as to afford a regular succession of the finest varieties, through summer, autumn, and winter, without additional charge.

Also, for sale, a large collection of hardy ORNAMENTAL TREES and SHRUBS, HERBACEOUS PERENNIAL FLOWERING PLANTS, &c., among which are a hundred selected sorts of Roses, the finest Spiræas, Pæonias, Phloxes, Tulips, &c.

Orders directed "J. J. THOMAS, Macedon, Wayne Co., N. Y.," and accompanied with remittances, will be carefully filled, and the trees or plants packed in the best manner for safe conveyance by railway.

9 mo. 8—36—8t—m2t.

Syracuse Nurseries—Syracuse, N. Y.

THORP, SMITH, HANCHETT & CO., particularly invite the attention of Nurserymen, Venders, and Planters, to their immense stock of trees of every description, being of unusually fine growth.

Standard Fruits of Apples, Pears, Cherries, Plums, Peaches, &c., for orchard planting, vigorous, stocky, and well formed.

Dwarf and Pyramidal Pear Trees, on the best *Angers* or *French Quince Stocks* (embracing every good variety that will work well,) 2 years old, very beautiful, vigorous, and well formed.

Dwarf Cherries on Mahaleb Stocks, 1, 2, and 3 years old trees, finely formed and handsome.

Gooseberries, Currants, Raspberries, &c.—Our stock consists of the choicest varieties, including the new celebrated sorts.

Grape Vines, of all the hardy sorts, with some 40 foreign varieties, grown in pots from single eyes.

We would particularly request persons who are desirous of purchasing, to examine the above trees, as they are not only worked on the best stocks that can be procured, and grown in good soil—but they are stout, stocky, and vigorous, maturing their wood early in the fall; and as we pay the most strict attention to our trees, during every stage of their growth, we feel that no stronger guarantee of accuracy can be given in this respect.

Ornamental Trees—Such as Horse Chestnuts, Sugar and Silver Maples, Elms, Black Walnuts, Silver Abeles, Tulip trees, &c., we have very large and fine for street planting.

Shrubbery.—A splendid collection, containing everything new and rare.

Roses.—One of the largest collections in the country, including all the novelties. Also the celebrated "Augnsta" Rose, which has given such universal satisfaction the present summer.

Bulbous Roots.—We are now receiving from Holland by steamer, a splendid importation of Bulbous Roots, comprising all the choicest varieties.

Green-house Plants, Fuchsias, Pompone Chrysanthemums, Verbenas, Dahlias, Strawberry and Hedge Plants, &c.

All orders strictly complied with in every respect, and articles packed in the best manner for transportation to any part of the United States. For further particulars see Catalogues.

No. 1. A general Descriptive Catalogue, combining Nos. 2, 3, and 4, in one volume.

No. 2. A general Descriptive Catalogue of Fruit Trees.

No. 3. A new Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, Flowering Plants, &c.

No. 4. A Descriptive Catalougue of Dahlias, Verbenas, Chrysanthemums, Geraniums, Fuchsias, Bedding out and Green-house Plants. Also a wholesale Catalogue or Nursery trade list. The above Catalogues will be sent gratis to all applicantions, (post-paid,) enclosing for the wholesale list one penny stamp—for No. 1 a letter stamp—and Nos. 2, 3, and 4, two penny stamps each.

THORP, SMITH, HANCHETT & CO.

Sept. 1—m2t.—w37, 38, 39.

Suffolk Pigs.

SIX pairs of purely bred Suffolk Pigs, also breeding sows, for sale by C. J. HOLDEN,
Walpole, N. H.

Sept. 15—2t*

Pear Seedlings.

FOR SALE, 50,000 Pear Stocks, one year old, raised here from Northern seed—very strong, suitable for nursery planting the ensuing spring.

Also, a general and very complete assortment of hardy FRUIT AND ORNAMENTAL TREES, SHRUBS AND PLANTS.

Particular attention paid to the cultivation of the PEAR—to which the soil here is admirably adapted—and of which fine healthy trees can be supplied, of nearly every choice variety in cultivation.

Catalogues sent gratis, on receipt of a stamp for pre-payment of the postage. Freight paid to the Lake.

J. BATTEY, Union Nurseries,
Sept. 15, 1853—w3t—m1t. Keeseville, N. Y.

American Botanic Garden and Nurseries.

5000 *Standard Pear Trees*, 3, years old, 5 to 7 feet high, mostly Virgalieu and Bartletts.

5,000 do. 2 years old, 3 to 5 feet high, including many other leading varieties. These trees are all healthy and vigorous.

5,000 *Peach*, one year from bud, strong and fine.

20,000 *Balsam Firs*, 3 years, cultivated, very fine.

10,000 *American Arborvitæ*, 2 years, cultivated.

The above, and many other articles, are offered at *wholesale, at very low prices.*

Also a general assortment of FRUIT AND ORNAMENTAL TREES, Shrubs, Roses, Pæonies, Phloxes, Spireas, Tulips, Hyacinths, &c., &c., *at retail.*

Particular attention is given to the cultivation of HARDY EVERGREENS, for Door-yards and for Hedges.

Catalogues furnished *gratis.*

Orders solicited. Address DELL & COLLINS,
Sept. 8—36—3t.—m1t. Waterloo, Seneca Co., N. Y.

Genesee Valley Nurseries.

A. FROST & CO., Rochester, N. Y., solicit the attention of Amateurs, Orchardists, Nurserymen, and others about to plant, to their stock of Fruit Trees, which is the largest, and much the finest that they have ever offered, consisting, in part, of the following:

Standard Fruit Trees—of Apple, 60 varieties, Pear, 75 var., Cherry, 50 var., Plum, 25 var., Peaches, 30 var., Nectarines, 6 var., Apricot, 6 var., comprising every sort of merit.

Fruit Trees on the best stocks of Apple, Pear and Cherry, and of the above large collection of sorts.

Small Fruits—Currants, 15 varieties, Gooseberries, 100 var., Grapes, native and Foreign, 25 var., Raspberries, 5 var., Strawberries, 20 var., &c.

Deciduous and Evergreen Trees for Lawns, Parks, Streets,

Evergreen and Deciduous Shrubs in great variety, including 400 sorts of the Rose.

Bulbs in varieties, Crocus, Crown Imperials, Gladiolus, Hyacinths, Lilies, including the Lancifolium of sorts, Tulips, &c.

Chrysanthemums, the finest new Pompone, or Daisy var.

Dahlias, the best and highest prize varieties shown in England, during 1851-2, including all the best varieties of old sorts.

Green House and Bedding Plants, &c., &c., of every description.

Plants for Hedges, Buckthorn, Osage Orange, Privet, American Arbor Vitæ. (White Cedar.) Norway Spruce, &c., all of which will be supplied at the lowest rates.

All articles are put up in the most superior manner, so that the plants, &c., may go thousands of miles, and reach their destination in perfect safety.

Parties giving their orders, may depend that perfect satisfaction will be given them.

The following Catalogues, containing the prices, are published for gratuitous distribution, but as we are obliged to pre-pay the postage if they are mailed, correspondents will please enclose a one cent postage stamp for each catalogue wanted.

No. 1. A descriptive Catalogue of Fruits, Ornamental Trees, Shrubs, Roses, &c.

No. 2. A descriptive Catalogue of Dahlias, Verbenas, and other bedding plants, &c., &c., including many new articles which may be introduced up to the time of its publication, and issued every spring.

No. 3. A wholesale Catalogue, a trade list just published for the fall of 1853, and spring of 1854, comprising Fruits, Ornamental Trees, such as Evergreens, &c., which are offered in large quantities.

Rochester, Sept. 22, 1853—w3t.

Seed, Wheat and Rye.

MULTICOLE RYE, Soules, Blue Stem, Australian, New Mediterranean, Genesce, White and Flint Wheat.

For sale by LONGETT & GRIFFING,
Sept. 15—w3t—m1t. No. 25 Cliff Street, New York.

Geo. H. Cherry & Co.,

River-Bank Nurseries, Rochester, New-York,

OFFER for sale a large assortment of FRUIT TREES of all kinds. The Trees are well grown, healthy and vigorous, and none other will ever be sent out. In addition to the above we offer, by request, a part of our young stock for transplanting, comprising—

100,000 Apples, 1 year from graft.
35,000 do 2 years from graft.
15,000 Cherries, 1 year from bud.
5.000 do 2 years from bud.
with Dwarf Pears, Peaches Plums, Appricots, &c.

Nurserymen desiring such stock, will find the above well worth their notice.

Orders for Trees are solicited, under a strong persuasion that we shall be able to give satisfaction. No pains will be spared to secure the confidence of the public.

GEO. H. CHERRY & Co.,
River Bank Nursery, North of St. Paul-street, Office 106 State-street, Rochester, N. Y. Aug. 18—w1tm2t.

Highland Nurseries, Newburgh, N. Y.

A. SAUL & CO., in calling the attention of their patrons and the public in general, to their very extensive stock of FRUIT AND ORNAMENTAL TREES, SHRUBS, &c., &c., which they offer for sale the coming autumn, would remark, that owing to the past summer being one of the most favorable for the growth of trees, which they have had for many years in this locality, their stock of *trees and plants, in every department*, is larger, more thrifty, and in every respect finer than usual.

To particularize within the limits of an advertisement would be impossible, they thefore refer *planters* and *dealers* of trees to their catalougue, a copy of which will be sent by mail to all *post paid* applicants for the same, on enclosing a post-office stamp.

They invite especial attention to their assortment of *Standard and Dwarf Pear and Cherry trees*, which are unusually fine, as well as Plum, Peach, Apricot and Nectarine; also Grape Vines, Gooseberries, Currants, Raspberries, Strawberries, &c., &c., in any known variety.

500,000 very strong two year old *Osage Orange* plants, in *three sizes*, at $10, $8, and $6 per thousand.

Buckthorn plants, $8 per thousand.

Newburgh, N. Y., Sept., 1 1853—m2t

Devon Cow for Sale.

FOR sale a thorough bred Devonshire Cow, at the low price of $65, half her actual value. All applications should be directed to C. REAGLES, Union Gardens and Nurseries, Schenectady, N. Y.

For sale cheap, 40 pure bred Shanghae fowls from 2 months to 1 year old, comprising White, Buff, Black, and Dominique colors—also 6 fine Black Spanish chickens.

September 1—m2t.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y. Braintree, Mass.

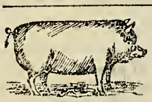
Suffolk Pigs.

THE subscribers are prepared to receive orders for pure Suffolk Pigs, bred from stock imported in 1848 by the late William Stickney, also by the subscribers in Jan. last. Address, JOSIAH STICKNEY, Boston or Watertown, or ISAAC STICKNEY, Boston, Mass.

September 1—m6t.

Suffolk Swine.

PIGS, Breeding Sows and Boars, of the purest blood and finest specimens. To be seen, one of the finest boars in the world. GEO. W. WILSON,
July 28—w1—m2t* Malden, Mass., 4 miles from Boston.



Suffolk.

SUFFOLK and Essex Pigs,

Improved Essex.

PURE BRED, for sale by B. F. KEYES,
July 22—m3t Dedham, Mass.

Durham Bull For Sale.

THE subscriber offers for sale a Full Blood Durham Bull, Lord Eryholme 2d, two years old the 5th of September. He is a splendid animal, got by Lord Eryholme, imported by Lewis G. Morris, Esq., of Westchester, and out of a superior imported cow. Registered, Vol. 10, Coates' Herd Book.

J. D. THORP,
Sept. 1—m2t Castleton, Rensselaer co., N. Y.

Spanish Merino Bucks.

THE subscriber offers for sale several Spanish Merino Buck Lambs. These sheep are supposed to be excelled by none in the state, and are pronounced by judges from different sections of the country to be superior stock. They are justly celebrated for weight and fineness of fleece, and perfect hardiness of constitution. Prices from $10 to $15 per head. LEVI S. WELLS,
Aug. 11—w4t—m2t. New Britain, Hartford Co., Ct.

Super-Phosphate of Lime—C. Deburgh's No. 1.

WE are the only authorized agents for the sale of Deburgh's Super-Phosphate of Lime in the city of New York. As there has been various spurious substances sold last spring for this superior manure, we request farmers and dealers to send their orders direct to our warehouse. We have sold about 300 tons this spring, and have received information from many that it was equal to guano in its immediate effect, and much more lasting in the land.

Any person who purchased from us Deburgh's Super-Phosphate last spring, which has not given satisfaction, by sending us notice, we will forward another lot for trial without charge. LONGETT & GRIFFING,
State Agricultural Wareheuse, No. 25 Cliff-st.
New-York, Aug. 11—w8t—m1t.

Manures.

PERUVIAN GUANO, Imp. Super-phosphate of Lime, Bone Dust, Bone Black, Sulphuric Acid, Potash, Poudrette, Plaster of Paris, Charcoal, &c., &c., for sale by
GEO. H. BARR & CO.,
Sept. 1—m2t. 53 Cortlandt St., New-York.

Farmers, Attention!

THIS is the proper season to use LEINAU'S AMERICAN FERTILIZER upon your farms. This truly valuable manure can be had at $25 per ton, or $3.50 per barrel. of the proprietor. Try it. It is now on exhibition at the Crystal Palace, New-York, and any amount of names can be given of its successful use. Also, Guano and Poudrette, Phosphate of Lime and Aqua Ammonia.

G. A. LEINAU,
Aug. 18—m3t. No. 19 South Front-st., Philadelphia.

Super-phosphate.

NO expense has been spared in the combination of this most fertilizing manure, which contains the natural properties of plants. It is superior to most of the articles offered for sale under the same name, and is inferior to none, although sold at a much lower price. It is put up in bags, at $40 per ton, of 2000 lbs., cash.

Office of the New-York Super-phosphate Manufacturing Company, No. 159 West-street, New-York.
Aug. 18—w1t—m3t VICTOR R. KNOWLES, Agent.

Super-phosphate of Lime.

IN bags and barrels, made by C. B. DeBurgh, a warranted pure and genuine article, for sale by
GEO. DAVENPORT,
No. 5 Commercial, corner of Chatham-st., Boston,
Agent for the manufacturer, with directions for use.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.

April 7—14—1t—mtf.

Manures.

PERUVIAN GUANO, $2\frac{1}{4}$ to $2\frac{1}{2}$ cents per pound.
BONE DUST, when taken in equal quantities, $2.25 per barrel.
BONE SAWINGS, separately, $2.50 per barrel.
PLASTER, $1 to $1.25 per barrel.
POTASH, $3\frac{1}{4}$ to 4 cents per pound.
CHARCOAL, $1 per barrel.
SULPHURIC ACID. $2\frac{1}{4}$ to $2\frac{1}{2}$ cents per pound.
SUPERPHOSPHATE OF LIME. $2\frac{1}{4}$ cents per pound.
WOOD'S RENOVATING SALTS, one cent per pound.

For sale at the State Agricultural Warehouse, No. 25 Cliff-street, New-York. LONGETT & GRIFFING.
Feb. 1—etf.

Horse Powers, Threshers, &c.

RAILWAY Powers of Wheeler's and other manufacture, for one and two horses.

THRESHERS—With and without Separators.

FANNING MILLS, CORN SHELLERS, and STRAW CUTTERS of the most approved kinds, for sale by

GEO. H. BARR & CO.,
Sept. 1—m2t. 53 Cortlandt St., New-York.

Agricultural Implements.

STRAW AND STALK CUTTERS—of all patterns.

CORN MILLS—both of Iron and Burr Stone.

CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.

ROAD SCRAPERS—of several patterns.

FANNING MILLS—of all the best makers.

SAUSAGE STUFFERS AND CUTTERS—of all patterns.

VEGETABLE OR ROOT CUTTERS—of approved kinds.

CORN SHELLERS—for hand and horse power.

VEGETABLE BOILERS—of Mott's and Bent's patterns.

GARDEN AND WHEEL BARROWS—of iron and wood.

HAY AND COTTON PRESSES—Bullock's patent

BRICK MACHINES—of Hall's and other makers.

WAGONS AND CARTS.

PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam. PLOWS—Eagle, Massachusetts make, and Minor & Hortons.

For sale at the State Agricultural Warehouse, No. 25 Cliff Street, New-York. Nov. 1—tf.

North River Agricultural Warehouse.

No. 53 Courtland Street, New York.

GEORGE H. BARR & CO., invite the attention of Farmers, Planters and others, to their large and varied assortment of Agricultural Implements, Manures, Seeds, &c., &c., all of which will be furnished at the lowest prices. Their assortment includes

PLOWS—All the improved kinds by the most approved makers.

HORSE POWERS—Of all kinds and sizes, with and without Thrashers, &c.

CORN SHELLERS—All the approved kinds, and some of recent introduction.

STRAW CUTTERS—Of all sizes and kinds, for hand and horse-power.

CORN AND COB CRUSHERS—Of all kinds and sizes.

FANNING MILLS, Cultivators, Harrows, Agricultural Barometers, Churns, of all the approved kinds, Rakes, Hoes, Forks, and a general assortment of Horticultural and Garden tools. Sept. 1—m2t.

United States Agricultural Warehouse and Seedstore

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble-ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine—also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, farm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers. Jan 1, 1853—m&wtf

Horse Powers,

ON the Endless Chain Principle, from the best manufacturers—Emery's, Wheeler's, and White & Prentiss.

THRASHERS AND SEPARATORS.—Thrashers, Separators, and Winnowers combined.

The above are warranted to give satisfaction. For sale at the lowest cash prices, at the State Agricultural Warehouse.

LONGETT & GRIFFING.
Aug. 18—w8t—m2t 25 Cliff-street, New-York.

Improved Portable Cider Mill and Press.

HICKOK'S Improved Portable Cider Mill and Press, received following premiums in 1852, viz:—A Silver Medal at the Fair of the American Institute, New-York. Diploma at the Franklin Institute, Philadelphia. First premiums at the State Fair at Utica, and at the Columbia and Rensselaer county Fairs, and a diploma at the Westchester County Fair.

Descriptive circulars sent free to all post-paid applications. See page 23 of this paper, for engraving, &c. Price $40.

Manufactured by W. O. HICKOK,
Harrisburg, Pa.

Sold by LONGETT & GRIFFING, 25 Cliff-st., N. Y.
EMERY & CO., Albany.
DANA BROTHERS, Utica.
PROUTY & CHEW, Geneva
HIGGINS & CALKINS, Castile, Wyoming County.
C. E. YOUNG, Main-st., Buffalo.
O. GREGORY, Binghamton.
CHARLES ASHLEY, Ogdensburg.
D. LANDRETH, Philadelphia.
July 14—w3m—m3t.

Railway Horse Powers,

FOR one or two horses—Threshers, Separators and Cleaners—Combined Threshers and Separators, all of the most approved plans, for sale at the STATE AGRICULTURAL WARE HOUSE, No. 25 Cliff-st., New-York.
July 28—w2m—m3t.

To Flax Growers.

THE subscriber has invented and builds to order, a FLAX MACHINE, which, attended by two hands, is guaranteed to dress from three hundred to four hundred and fifty pounds of flax per day. The saving in labor and tow, by comparison, is considered equivalent to the cost of dressing flax by the best common machinery, used in this country and Europe. The new machine is made with care, to secure strength and durability, and can be run at a speed which requires more than two hands to attend it. Unrotted flax straw can be dressed by it. It can be driven by horse power or otherwise; and, being portable, can be sent any distance. For the present, the price of the machine complete, is $100. Those who wish to obtain it in season to begin operations next autumn, will do well to apply soon.

S. A. CLEMENS.
Springfield, Mass., March 9, 1853.—mtf.

Valuable Farm for Sale.

THE subscriber offers for sale four hundred and fifty acres of land, being a part of his homestead, and comprising two hundred acres of as desirable land as any in Addison county—lying on the main road four miles north of Vergennes on the border of Lake Champlain, and one mile from the Railroad Station. It is under good cultivation, and furnished with commodious buildings. The remaining 250 acres is wood land; a portion of it covered with a heavy growth of hemlock and other valuable timber, and the remainder with the best quality of wood for fuel. The property will be sold together or in parcels. Postpaid inquiries promptly responded to.

ROW'D T. ROBINSON,
Aug. 1—tf Ferrisburgh, Addison co., Vt.

A Virginia Farm For Sale.

PLEASANTLY situated in Fairfax county, 13 miles from Alexandria, 16 miles from Washington, and about 1½ miles from Lee station, on the Alexandria and Orange railroad, a farm of 218 acres, about one-half intervale or bottom land, the residue a gentle swell of upland. It is admirably adapted to grazing, and is well watered with two small streams of never failing water, and is capable of producing excellent crops of corn, wheat, potatoes, grass, &c. The location is healthy, and the markets as good as any in this country. On the premises is a young and thrifty orchard of 125 apple trees, 25 peach trees, pear, cherry trees, &c. Also a timber lot of 20 acres, (hard-wood,) and 50 acres second growth pine, which will yield 40 cords per acre, worth $2 per cord at the railroad, 1½ miles distant. There is a small dwelling house and other buildings on the farm. The fences are tolerable, 2000 new chestnut rails having been added to the fences within two years. Price $10 per acre; one half in hand, the balance in two years. Persons desirous of examining the premises, will call upon ANSEL WHEDON, Agent, near Lee station. For further information, address

A. & O. WHEDON.
March 18—w2—mtf. West Pawlet, Vt.

Agricultural Books

THE Transactions of the New-York State Agricultural Society, vols. 1 to 9, for sale at the Office of "THE CULTIVATOR," price $1 per vol.

Contents of this Number.

Agricultural Machinery, ... 297
Growth of Timber—How to Have Plenty of Water, 298
Tanks for Liquid Manure, ... 299
Green Manuring—Underdraining, ... 300
Removing Suckers from Corn—Red Clover Sown in the Fall, by S. B. Buckley—Important Discovery, by D. Tomlinson, ... 301
Beebe's Patent Grain Drill and Corn Planter—Experiments with Charcoal, ... 302
Time to Sow Plaster, by W.—To Prevent Injury from Ground Mice, by Henry White, ... 303
Visit to Mount Fordham, ... 304
Letters on British Agriculture, by J. A. Nash, ... 305
Spurious and Genuine Science, ... 307
Vermont State Fair, ... 308
Don't Pull of the Suckers! by W. H. Scram, ... 309
Answers to Inquiries, ... 310
Preserving Fresh Fruits—The Preservation of Eggs for Winter Use, by C. E. Goodrich, ... 311
Frauds of Nurserymen—Notes on Fruits, ... 312
American Agave—The Japanese Wind Flower—New Early Plum, ... 313
Striking Cuttings in the Spring, by Edgar Sanders—Transplanting Garden Plants, by W. R. Prince, 314
General Hand Plum—Garden Fertilizers—Loss of the Plum Crop, ... 315
Schenck's August Pear—Seedling Plums—New Cherries — Transplanting Strawberries — Preventing Gooseberry Mildew—Girdling Fruit Trees—Markets, and Cost of Fruit, ... 316
"Ayrshires as Milkers," by H. G. Foote—Shorthorns as Milkers, by P.—Good Milch Cows, ... 317
Great Sale of Imported Cattle—Recent Importation of Stock, ... 318
Jersey or Alderney Cattle, ... 319
The New-York State Fair ... 320
Notes for the Month, ... 322
Super-phosphate of Lime, ... 323

ILLUSTRATIONS.

Tanks for Manure, ... 299
Patent Grain Drill, ... 302
Mount Fordham, ... 304
Cast Iron Pig Troughs, . 305
American Agave ... 313
Japanese Wind Flower, 313
Forcing House, ... 314
General Hand Plum, ... 315
Old Jersey Cow, ... 319
Improved Jersey Cow, . 319

Basket Willow.

CUTTINGS of the best kinds of Basket Willow, with directions for planting, for sale at $5 a thousand. by
WM. H. DENNING,
Sept. 22—m2t* Fishkill Landing, Dutchess Co., N. Y.

Walworth Nursery.

THE subscriber has for sale:—
20,000 choice Apple Trees, some quite large.
20,000 Dwarf Pear Trees.
10,000 choicest varieties Peach Trees.
1,000 large Mountain Ash.
2.000 Horse Chestnut.
3,000 large stocky Balsam Fir.

All trees sold at the *very lowest* prices, and Catalouges furnished to applicants. T. G. YEOMANS.

ALSO, POLAND OATS.

150 bushels of the celebrated Poland Oats, that weigh 42 pounds to the bushel—for sale at one dollar per bushel. Last spring I could not supply one-fourth my orders for them.

Walworth, Wayne co., N. Y., Oct. 1. 1853—m1t*

A Most Valuable Farm For Sale.

253 ACRES OF LAND lying on James river, 16 miles from Richmond. The "James River and Kanawha Canal"—now 200 miles long—passes through the farm, affording great facilities for the Richmond market. There are 70 acres of *low grounds* notorious for fertility; the residue is in good heart on red clay bottom. There is a bridge across the canal, to be kept up in perpetuity at the expense of the canal company. The dwelling and other buildings, are well adapted to the comfortable accommodation of a large family. The view of the James River and surrounding country, is highly picturesque. This is a rare opportunity to obtain a farm on James River, near Ricmond, and which very seldom occurs. Further particulars may be obtained, by application, post-paid, to B. B ALLEN, 19 Platt-street, N. Y., or to GODDIN & APPERSON, Richmond, Va.

☞ Price $6,500. Terms will be made to suit a purchaser, and the growing crops, implements, stock, &c., disposed of either at private or public sale, and immediate possession given. Sept. 22, 1853—m1t*.

Grey Chittagong Fowls.

CHITTAGONG Fowls, pure blood, for sale by
JOSEPH W. WHITE, Gov. St.
Hartford, Conn., Oct. 1—mtf.

Seed Wheat.

A LARGE assortment of the best varieties of Seed Wheat, among which are the Mediterranean, Hutchinson's and Soule's White Flint, for sale by
GEO. H. BARR & CO.,
Sept. 1—m2t. 53 Cortlandt St., New-York.

New-York Agricultural Warehouse.

HORSE Powers, Threshers, Fan Mills, Smut Machines, Grain Drills, Hay Presses, Grain Mills, Corn and Cob Crushers, Cider Mills, and a large assortment of Plows and all kinds of Agricultural and Horticultural Implements.

Peruvian Guano, Super-phosphate of Lime, Bone Dust and other fertilizers of the most superior kinds.
R. L. ALLEN.
Aug. 18—w mtf. 189 & 191 Water-st., New-York.

Superior Seed Wheat.

A LARGE assortment of the best varieties of improved Seed Wheat, among which are the Golden Australian, China or Troye, White Flint, Hutchinson's Improved, Soule and Mediterranean.

Seed Rye of the best winter variety; also a cheaper kind, suitable for late fall and early spring pastures.

Field and Garden Seeds of the various sorts.
R. L. ALLEN,
Aug. 18—w mtf. 189 & 191 Water-st., New-York.

Poudrette!

THE LODI MANUFACTURING CO. have on hand a large quantity of newly made and very superior quality of Poudrette, which they will sell at retail at their usual prices, $1.50 per bbl. for any quantity over seven bbls., delivered free of charge on board of vessel. Persons desirous of purchasing from 2 to 500 bbls. Poudrette for this fall's use, or to lay up for early spring demand, will find it to their advantage to communicate early with THE LODI MANUFACTURING CO., No. 74 Cortland-st., New-York.

July 28—w3m—m3t.

THE COUNTRY GENTLEMAN

IS PUBLISHED EVERY THURSDAY,
By LUTHER TUCKER, Proprietor,
At 395 Broadway, Albany, N. Y.

LUTHER TUCKER AND JOHN J. THOMAS, EDITORS.
JOSEPH WARREN, ASSISTANT EDITOR.

TERMS.—To City Subscribers, whose papers are delivered by carriers, $2.50 per year.

To mail Subscribers, $2.00 a year, if paid in advance—or $2.50 if not paid in advance.

The postage on this paper is but 6½ cents per quarter—payable in advance—to any part of the United States, except the county of Albany, where it goes free.

ADVERTISEMENTS.—A limited number of advertisements will be inserted, at the rate of $1.00 per square of 12 lines for the first insertion, and 50 cents for each subsequent insertion.

THE CULTIVATOR:

A MONTHLY JOURNAL OF
Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 CENTS A YEAR.

This standard AGRICULTURAL MONTHLY commences with the new year, its THIRD SERIES. It is published in the same superior style, and will now be more valuable than ever, as the choicest Agricultural and Horticultural articles in THE COUNTRY GENTLEMAN will appear in its pages. The price hereafter will be as follows:

Single copies, Fifty Cents—Eight copies $3—any larger number at the same rate.

All subscriptions must commence with the January No., and the payments must in all cases accompany the order for the paper.
LUTHER TUCKER,
Publisher, Albany, N. Y.

Postmasters and all friends of agricultural improvement, are respectfully invited to act as agents for THE CULTIVATOR and THE COUNTRY GENTLEMAN.

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. I. ALBANY, NOVEMBER, 1853. No. XI.

The Cultivator for 1854.

As the first volume of the *Third Series* of THE CULTIVATOR is drawing to its close, we deem it an appropriate time to tender our acknowledgments for the many complimentary letters we have received during the year, and to assure our friends that we have not been insensible to the gratifying tokens, received from so many sources, that our efforts to supply the agricultural public, at a greatly reduced cost, with a sound practical journal, have given so universal satisfaction. Relying as we do, upon the gratuitous exertions of the friends of rural improvement, for support, their verdict in our favor is of the most vital importance.

As we are soon to enter upon a new volume at the same reduced price, we wish to remind our readers, and especially those who have so kindly acted as Agents, of the fact that THE CULTIVATOR has, for the *twenty years* it has now been published, never turned aside from the great work for which it was established, to wit, "to improve the soil and the mind," and thus to elevate the standing and character of the American husbandman. In accomplishing this object, it has brought to its aid, not only the developments of the laboratory, but the more sure test of experience, believing, after all that chemistry has yet done for agriculture, that the practical results which have followed the application of an intelligent and discriminating judgment to the culture of the soil, afford the most sure and certain guide to those who are seeking improvement. While it has gladly availed itself of the developments of science, it has studiously endeavored to bring them to the test of experience; and it is believed that it is not saying too much to repeat what has often been said by its readers, that the volumes of THE CULTIVATOR are a more valuable repository of the true principles and practice of American husbandry than can be found in any other work. Having no special theory to inculcate, it has recorded and discussed with freedom, the various theories which have been promulged, and sought to deduce from them such principles and suggestions as were worthy the consideration of the farmer. With no other interest to subserve than the public good—with no private advice or nostrums to dispose of, for a consideration—with no connection with or interest in any other establishment, it has been and will continue to be our aim to promote the best interests of the entire farming community, and to make our paper, in the best acceptance of the term, a truly NATIONAL AGRICULTURAL JOURNAL—one to whose pages all may refer with profit and safety

If, as we have reason to suppose, the dissemination of the true principles of agriculture, is one of the most efficient means of promoting its improvement, then the circulation of THE CULTIVATOR ought to be greatly extended. It is now furnished at a price so low as to render its cost no obstacle to its unlimited extension, for there are none so poor that they cannot afford to pay fifty cents, for a large handsome volume of near 400 pages.

It is for the readers of THE CULTIVATOR to decide the measure of its influence and usefulness. If the principles we advocate, the information we publish, the hints we throw out, from time to time, are, as we are often assured, of great practical value, and calculated to place the science and art of Farming upon a correct basis, it is a matter of no small moment that these teachings should be made accessible to the greatest possible number of farmers. What that number shall be is a question which must be answered by our readers, and in which every subscriber should feel an individual interest and responsibility. The suggestions and the facts we present for your consideration are equally important to the hundreds of farmers in every town who are not readers of any agricultural journal, and who, consequently, are not making that advance which the careful perusal of such a paper would enable them to do. Who is answerable for this? Whose fault is it that the means of improvement are not in the hands of more farmers? Partially their own, but more that of those who, knowing a better way, have not made the necessary exertion to spread the knowledge they have acquired through the medium of the press. We can speak as well to one hundred thousand as to one; and it is for our readers—those who have the welfare of the farming interest of our country at heart, to say how many or how few shall partake of the benefits to be derived from the perusal of our journal. Knowing as we do, the great number of farmers who read no periodical devoted to their calling, we cannot hesitate, with this view of the subject, to appeal to each and all of our readers to aid us in the good work in which we are engaged, by renewing and increasing their efforts to promote the circulation of THE CULTIVATOR for 1854.

The terms of THE CULTIVATOR are, for one copy, FIFTY CENTS—eight copies, $3—any larger number at the same rate.

☞ All those disposed to act as Agents for The Cultivator, will please to remember,

1. That all subscriptions for eight copies or more, are to be paid for at the rate of 37½ cents each, and that the money, with postage stamps for any fractional parts of a dollar, should accompany the order.

2. After an Agent has ordered eight copies, he can order any less number at any time at the club price.

3. The papers will be addressed, when requested, to the individual subscribers, and to as many different post-offices as may be desired.

4. Great care should be taken to write the names and address of each subscriber, distinctly, thus:

John Smith, Washington, Berkshire Co., Mass.

☞ Specimen Numbers and Prospectuses will be sent to all who desire them.

◆

THE COUNTRY GENTLEMAN:

A WEEKLY JOURNAL

For the Farm, the Garden, and the Fireside.

The Publisher of "THE CULTIVATOR," believing that the time had arrived when the wants of our rural population demanded a WEEKLY JOURNAL, devoted especially to their interests, commenced, on the first of January, 1853, the publication of "THE COUNTRY GENTLEMAN," in connection with his monthly journal. The gratification with which it has been received by the public, and the liberal circulation already extended to it, show that the general plan and object of the journal has met with the hearty approbation of those whose interests and improvement, it was intended to promote.

THE COUNTRY GENTLEMAN is printed in quarto form, each number consisting of 16 pages, liberally illustrated with engravings of Houses and Farm Buildings, Ornamental Structures, Domestic Animals, Agricultural Implements, Fruits, Flowers, &c., and making two handsome volumes of 416 pages each, per year. It will be the constant aim of the proprietor to make it attractive and elegant in its typography and illustrations, as well as choice and select in its contents; and by devoting its pages to IMPROVEMENT IN AGRICULTURE, ELEVATION IN CHARACTER AND REFINEMENT IN TASTE, to render THE COUNTRY GENTLEMAN indispensable to the Farmer, and desirable to every one who has a rod of ground to cultivate, or a home to beautify.

THE COUNTRY GENTLEMAN is published on Thursday of each week, at $2.00 per year, payable in advance—or $2.50 if not in advance.

☞ All Agents for THE CULTIVATOR are authorized to act as Agents for THE COUNTRY GENTLEMAN, and to retain a commission, where four or more copies are ordered, of fifty cents on each.

Back Volumes of the Cultivator.

I. The FIRST SERIES consists of TEN volumes, quarto, of which a few copies are yet for sale—price, bound, $10.

II. The SECOND SERIES contains NINE volumes, octavo—price, bound, $11.25.

III. The THIRD SERIES commenced Jan'ry, 1853—consequently the first volume will be completed with the present year. Price, bound, 75 cents—put up in paper covers, 50 cents.

☞ Most of the volumes of all the series, can be furnished to complete sets.

☞ All new subscribers for 1854, would do well to order the volume for 1853, that they may have the third series from its commencement.

◆

The Best Fowls.

MESSRS. EDITORS—In the 31st number of the Country Gentleman I notice an inquiry made by S. W. J. in regard to the best method of managing a small flock of hens, and for the best plan for a roost—also, which are considered the best layers. As no public answer has been given, permit me to give my experience as to the last clause of the query.

It is now about three years since I commenced experimenting in the different kinds of domestic or dunghill fowl. I have had the following, viz: Dixon, Shanghai, Grey do., or Brahma Pootra, (of the Cornish stock,) Imperial Chinese (Marsh stock,) Burnham's Cochin China, Golden Spangled Hamburgh, and Java Game. I have tested their qualities to my satisfaction; and now I would not on any condition keep or raise any but of the Imperials (Marsh stock,) for reasons which I will give.

Soon after I commenced the hen business, I found any quantity of *foul trade and deception* was carried on in the hen speculation, and in getting my stock, was very careful to select myself, rather than order; and having heard much of the Marsh stock, I went to West Roxbury, Mass., and purchased of the Rev. C. Marsh, a pair of the above celebrated variety, selecting, or rather taking my choice from his flock, and I had to pay a price too, as I thought, but to my satisfaction and surprise the hen proved to be a *ne plus ultra;* for she laid in ninety-two days 86 eggs. I last year raised from her nine pullets, rather late ones too, for I sold her early laid eggs for hatching at $3 per dozen. These pullets and the old hen I wintered. They began to lay early in December, and up to the present time, notwithstanding that in our family of ten persons, we have used all that we wished, I have sold from them 113 dozen of eggs, for $21.59, during the past season, have raised eight litters of chicks, having set under eight hens 111 eggs. Some hatched the entire number set under them, and some made failures; but after having a great number destroyed, I have now 63 of the chicks, (if chicks they may be called, as they weigh from five to six pounds each,) which are the *real simon pure*, and very beautiful. R. A. WILLIAMS. *Preston, Conn., Aug.* 23, 1853.

New Books.

ELEMENTS OF AGRICULTURAL CHEMISTRY AND GEOLOGY. By Prof. Johnston. With a complete index and American preface, by Simon Brown, editor of New-England Farmer. New-York: C. M. Saxton.

This is a neat duodecimo volume, the title of which well explains the contents. It is a much larger and more complete work than the CATECHISM on the same subject, published some years since, and is plainer and more elementary in its character than the LECTURES by the same author.

Prof. Johnston has been long known as standing among the first agricultural chemists of Europe, and as belonging to the more moderate, common-sense school, that teaches the absolute necessity of connecting experiment in cultivation, with the theoretical deductions of science. Hence our readers, who may purchase this excellent and valuable treatise, may do so with the assurance that they will not be likely to be misled by chimeras, but that sound scientific suggestions will be placed before them, for the assistance of their attempts at improved cultivation. The present work contain some well-timed suggestions on detecting frauds in the sale of concentrated manures, which are much needed at the present time, when gross impositions of this character are likely to become common, as they have already in some places—impositions, which cannot be *immediately* detected except by chemical analysis.

There are some peculiarities in the people of the two nations that modify a work of this character. The English are careful and cautious—the Americans are prompt and headlong; the English chemists have therefore avoided some of the blunders into which others have been led by a love of the marvellous, and who, from a superficial knowledge of science, concluded that the agricultural millennium was close at hand. The reader of this work of Prof. Johnston will therefore occasionally observe the importance of scientific knowledge more strenuously urged in particular instances, on his sceptical countrymen, than would be necessary in a different latitude and meridian. This, however, does not at all lessen the value of the work, which we commend to all who wish to understand the rationale of successful culture.

TRANSACTIONS of the Agricultural Societies of the State of Massachusetts, for 1852, with the procedings of the State Board of Agriculture. Prepared by AMASA WALKER, Secretary pro tem.

We are indebted to CHARLES LOUIS FLINT for a copy of this volume, which consists of about 800 well filled pages, containing a vast amount of valuable practical matter. It is mostly occupied with an abstract of the proceedings and reports of the county societies. The numerous statements of the successful competitors for premiums, which those societies require, and which, in most cases, are given in a clear and practical manner, together with the many well written and excellent reports of committees, constitute the great value of the volume.

There are also some excellent essays and addresses given in this work, and some marked with too much random assertion, to merit a place in a volume of this character. For example, we are told on page 581, where the writer is speaking of the analysis of soils, that "analyses of mineral substances are among the *easiest processes* of the chemical laboratory, upon which the pupil commences his earliest manipulations." We should suppose this to be ironical, did not the rest of the address from which it is taken show otherwise—the author having adopted the wild chimera that only a few years are needed to bring about an extraordinary revolution by means of chemistry, in practical farming.

As a whole, however, we have not met with any volume of the transactions of agricultural societies, which contains more of a truly valuable and practical character; while the excellence and accuracy of the typography are worthy of the imitation of others.

Albany County Fair.

The First Annual Fair of this Society took place at Bethlehem Centre, Tuesday, Wednesday and Thursday, Oct. 4, 5 and 6. The organization had from its formation been regarded by many as an experiment of very doubtful success, and its most sanguine friends were not entirely free from the apprehension that the strength and beauty of Albany County would not be adequately represented. The Fair has decided the experiment to be eminently successful, and more than realized the anticipations of all. The attendance on both the public days was very large, and principally from the farming towns. The chill October air and the driving wind kept some exhibitors and more visitors away; still a large proportion of the county and its wife and children gave the sanction of their presence to the occasion.

To convey a correct idea of the extent and character of the show, it would be necessary to publish the entire list of entries and award of premiums, which our limited columns will not permit. We must, therefore, content ourselves and our readers with a brief notice of the several Departments.

The whole number of exhibitors in the Stock Department was *one hundred and twenty-two.* The show of horses was large and embraced many very superior animals. Aside from those to which premiums were awarded in their respective classes, "Young Norman," a six year old Stallion exhibited by Wm. Hunter, of Watervliet and one by Mr. M. Olcott, of Adrian, Mich., are worthy of especial notice. Among single horses, a fine gelding, half English bred, and well trained, shown by Dr. James F. Babcock, of Albany, and a Black Hawk mare of good style and action, exhibited by Luther Tucker, attracted much attention. To both these animals discretionary premiums were awarded. There were several fine ponies. The judges awarded a discretionary prize to Thomas Brown, of Bethlehem, for a well-built bay pony. Several spans of matched carriage horses, for which no premiums were offered, were shown; among these a span exhibited by Mr. Lawton, of Albany, and another by Senator Cooley, were very fine. The matched horses shown by Peter McHarg, of New Scotland, were among the best on exhibition.

The show of Cattle was not so large as was expected. For best lots of Dairy Cows there was no competition, and the display of native stock generally was much less in point of numbers than it should have been. The Farmers will have an eye to this another year, and see that this department is not neglected.

Sheep and swine did not figure largely at the Fair, still all those shown were superior animals. Those to which premiums were awarded comprise a majority of those on exhibition.

The display of Poultry was a prominent feature of the Show. Among the leading exhibitors were Geo. Anderson, Joseph H. Platt, H. N. Wickes, C. W. Godard, N. E. Crandall, of Albany, and E. Elmendorf, of Coeymans. In addition there were a large number of individuals who showed single coops or pairs of the different varieties.

In the department of Vegetables and Fruits, there were *eighty-one* different exhibitors, and the display was in extent and variety highly creditable to the county. It was remarked by many who attended the State Fair, that the collection of Fruit showed was fully equal to that. Some of the finest fruit was from the towns remote from the city. E. Dorr of Albany, received the premiums on Plums. Mr. Rainsford of New-Scotland, and John R. Myers of Bethlehem, were successful competitors for premiums on Peaches. The number of exhibitors of apples was very large, and some very superior specimens were shown. E. Corning, Jr., James Wilson, C. P. Williams and J. S. Gould of Albany, made a large display of Pears. C. P. Williams, Joel Rathbone, A. Dorr and J. S. Goold, made a splendid show of grapes. We have not space to notice the large number of exhibitors in the vegetable Department, but the show was far in advance of those usually made by the Horticultural Society.

L. Menand, of Albany, was the only exhibitor of Green House Plants and Flowers, and is entitled to great credit for the public spirit which he uniformly manifests on occasions of this sort.

The display in the Ladies' and Miscellaneous Departments embraced a great variety of manufactured articles. The show of fancy needle-work and embroidery gave evidence of skill and taste on the part of the ladies. The show of daguerreotypes by Churchill, McBride, Schoonmaker, and Thompson and Greene, was very extensive. Taylor & Waterman and Van Gaasbeck & Co. exhibited beautiful specimens of carpets, rugs, &c. A. Marcus and J. B. Hoffman & Co. exhibited specimens of cigars, tobacco and snuff. John S. Robbins showed a fine assortment of hats, caps and furs. W. Richardson displayed window shades and paper-hangings in great variety. In the Ladies', Manufacturer's and Miscellaneous Departments there were *one hundred and ten exhibitors*. The large tent belonging to the State Society was well filled with superior articles, and the general impression left upon the minds of visitors was very favorable.

Emery & Co. made a large exhibition of Farm Implements. Crownse and Siver and O. De Groff, Bethlehem, showed very superior Farm Wagons, to which premiums were awarded. Deering and Dederick exhibited their Horizontal Hay Press. The new Seed Drill and Corn Planter of Bebee and Wormer attracted considerable attention. Two carriages were exhibited by Guardinier and Selkirk, Albany, of superior workmanship.

On the afternoon of the last day, Prof. AMOS DEAN, of Albany, delivered the annual address. Owing to the wind, which made it impossible to raise a tent, it was pronounced in the open air. It was listened to with attention by a large audience, who were instructed by his timely suggestions, and amused by the pleasantries with which his extempore remarks were interspersed.

Directly after the address, followed the exhibition of Horsemanship by Young Ladies. This display attracted a large crowd from the city, and passed off to universal satisfaction. No one seemed to question the propriety of the thing, and all conceded that it was an attractive feature, which other counties would do well to imitate. As certainly as horseback riding is a healthful exercise, and that to sit and manage a horse well is an accomplishment for a lady to be proud of, so certainly is it desirable to encourage a generous rivalry in equestrianship. Five young ladies entered the ring, to whom premiums were awarded as follows:—

1st Prize, Miss C. M. SPRINGSTEED, Albany, *Silver Pitcher.*

2d Prize, Miss LEAH M. IRELAND, Watervliet, *Silver Goblet.*

3d Prize, Miss SARAH OSBORN, Watervliet, *Silver Cup.*

4th Prize, Miss HELEN LAWTON, Coeymans, *Silver Spoons.*

5th Prize to Miss PHOEBE BEARDSLEY, Albany, *Pair of Silver Butter Knives.*

The total receipts of the Society, for members and single tickets during the Fair, was over $900. The whole amount of premiums offered were not awarded, and it is expected that the receipts of the Society will meet its liabilities.

Re-seeding to Grass.

MESSRS. EDITORS—We have been disappointed in our newly stocked fields, from the unparalleled drouth in this section. Would it be best to sow grass seed this fall, and harrow it in? or go through another course of cropping and manuring? D. R. S. *Malone, N. Y.*

There is nothing to prevent an immediate and successful re-seeding of the ground in which the grass-seed failed by the past season's drouth. We have been quite successful with the practice of sowing the seed, without any other crop, early in spring, and brushing it in. It commences growing immediately, and if plenty is sown, affords most abundant pasture for cattle for the last half of the same year. We have at the present moment a field affording to our milch cows the most productive and luxuriant growth of grass, by far, to be found in the neighborhood, that was seeded in this way, last spring, at the rate of half a bushel of mixed timothy and clover to the acre. This abundant supply of seed, gives, we think, about twice as heavy a crop as that afforded by the usual quantity. If the land could be plowed late in fall, it would probably fit it well for the early sowing of the grass seed.

Farming in Windham County, Ct.

Mr. Tucker—I observed in one of the late numbers of the Cultivator a notice of an address delivered before the Windham Co. (Ct.) Ag. Society the last season. This Society has been as good as dead for a number of years past, but has lately revived through the exertions of some of the more enterprising farmers in Brooklyn and the vicinity.

Perhaps a short sketch of its condition as a farming district, may be interesting to some of your readers.

Windham County embraces within its limits a great variety of soil, and exhibits among its occupants every degree of thrift from the skillful management of our best farmers to those slip shod operators which scarce deserve the name of husbandry.

As a general thing the eastern part of the county is much the poorest. The face of the country is hilly, the soil of a yellowish cast, very thin and full of stones. These characteristics find their culminating points in the towns of Willington, Westford, and Union. Here may be found lands as near barren as one could desire, and which I believe it would puzzle even Prof. Mapes to find means to renovate. In addition to this discouraging fact, want of neatness seems to be a prevailing fault. Stone walls are dilapidated or overgrown with bushes. Door-yards are neglected. Buildings are put up in bad taste ; the barns especially, frequently looking more as if they came together by accident than according to any plan, while the barnyards are often as extensive as the farm. Pig styes are built by the side of the road, and their proper occupants are generally allowed the freedom of the highway. One cannot resist the conviction, either that farming is a secondary business, or that the farmer has become discouraged and retreated to his domicil, while his natural enemies are advancing upon him with rapid strides and threatening to drive him from the country. Grass is the principal crop, and one would naturally suppose that the most would be made of it, but instead of this I know of some farmers who suffer autumn to make its appearance before their first crop of hay is cut. As a natural consequence the cattle are small, making but a slow growth, because on such kind of feed they lose nearly as much in the winter as they gain in the summer. I would not impeach the industry or ability of the good people of this section, but if I wished in a single term to describe their general style of farming I know of none that would apply so well as the word *slack*.

This is rather a dark picture it is true, but it will be remembered that I have been speaking of general characteristics. There are single farms of great natural beauty and fertility, and some are made such by the hand of patient persevering laborers. There are some signs of improvement too in the mode of conducting farming operations. Occasionally you may see the independent horse-rake bounding over rocks and bogs, doing the work of five or six men, and doing it like a man. Sometimes you will find a man who has come to the conclusion that it is better to cut up his corn at the roots and so save all his fodder, than to top it and save only half. And there *are* those who prefer keeping their stock yarded and saving their manure, to having it wasted away by the streams, and so enrich the lands of others at the expense of their own.

I think the greatest promise of improvement is in the use of guano. Though but just beginning to be introduced, it has already effected some very favorable results. The most common way of applying it as far as my knowledge extends, is in raising a crop of buckwheat. To this it seems well adapted, and its effects are generally very marked. I have seen, this season, buckwheat standing waist high on a gravelly knoll which for a long time has not been thought worth cultivation, and this solely by the application of a hundred pounds of guano to the acre, at the time of sowing.

I was told of another instance in which it was applied at the same rate, and the yield was twenty bushels per acre, while on land adjoining this and precisely similar to it in character and treatment, except the guano, the crop was barely worth harvesting. Still another instance was related to me of its successful use on a very unproductive lot of land containing about seven acres. I think the owner told me that twenty acres of such land would not pasture a cow. It was plowed and sowed with buckwheat and guano. The yield was a fair one. The next year it was again dressed with about 50 lbs. and planted with potatoes. The produce this year was 400 bushels potatoes, and not far from 80 of buckwheat, which was self sown and grew with the potatoes, being carefully saved at the time the potatoes were dug. The last spring it was sowed with oats and grass seed. The crop was estimated at 30 bushels per acre, and there is a prospect of a fine crop of grass the next year. Considering that guano was the only manure used, and that the land was almost worthless at first, this may be called a very good operation. I am not sure whether guano was used with the oats. One farmer has become so well satisfied of its value for his land that he ordered a ton the last spring, the greater part of which he used himself.

Such facts as these show that the spirit of improvement is at work even here, and that nothing is needed but a few more farmers of the right stamp, and the fostering care of one or more well organized and efficient Ag. Societies, to turn many of these wilderness places into fruitful fields.

I have been speaking, it will be recollected, of that part of the county the least valuable for agricultural purposes. There are other portions of it which in point of natural fertility or skillful management will compare favorably with any part of the State. Such are the towns of Brooklyn, Pomfret and South Woodstock.

Having the pleasure of a personal acquaintance with Hon. William Lyon who owns a farm in the latter place of some two hundred acres, I have repeatedly had occasion to notice the admirable system maintained on his establishment, and the substantial manner in which all his improvements are made.

When Mr. Lyon took possession of his farm, a young man, it was heavily encumbered with mortgages. These under his skillful management have not only been paid off, but a family has been educated, large and expensive barns and out buildings have been built, and his farm and stock meantime kept in a state of constant improvement. He ascribes his success to a few general principles which he early adopted and has steadily adhered to. These are deep and thorough cultivation, a free use of plaster, and the raising of his own stock. He informed me that his whole farm, with the exception of an acre or two, has been under cultivation with the plow, a thing quite too uncommon in that part of the country, but which required in his case no little patience and perseverance to accomplish, as he made it a point to dig or blast out most of the rocks, and lay them into walls. He began the improvement of his stock with a cross of what he called the Holderness with the native; since which time he has carefully bred from his best animals, and occasionally crossed with valuable ones of the improved breeds until he produced a herd which left little to be desired, either for dairying purposes or for the stall.

The farm is at present managed by his gentlemanly and enterprising son-in-law, Benjamin Sumner, Esq. He is giving his attention chiefly to the breeding of the Improved Short horns, and the raising of fruit, particularly apples. Of the latter he has a fine orchard of choice varieties, planted with his own hands, which is just beginning to bear.

His stock of full blood short horns, is not large, but includes some superior animals, and his grades do him much credit as a breeder of stock. I should not omit to mention in this connection his Suffolk swine and South Down sheep, both fine of their kind, though perhaps the latter are wanting something in size.

But I fear this communication has been extended to an unreasonable length. If so, the fruitfulness of the theme must be my apology. E. N. N.

Information Wanted.

L. Tucker, Esq.—As a subscriber to the Cultivator for some years past I would fain ask a few questions, a reply to which some one of your numerous subscribers or correspondents perhaps will furnish.

Which is the best way of steeping grass-seed? I have sowed last spring both Lucerne and Orchard Grass, but as I could not attend to it early in the season, I took the precaution to sow both with Buckwheat, thinking that the shading leaves of that plant would prevent the effects of drouth. The Lucerne has come up well, and since the Buckwweat has been removed, is growing nicely, but the orchard grass has come up very sparingly, which is owing, I suppose, to the seed not having been steeped.

Is Lucerne liable to be winter killed? If so, *would it be advisable to cover with straw?*

I have noticed on my young apple trees a very peculiar caterpillar, of which I would send you a specimen, but for its perishable nature. It has a greenish white body of about three-eighths of an inch in length, and carries on its back a shield of a very soft brownish velvety texture. I have never seen any of that species before, and they are certainly very peculiar. Can you furnish any name to the beauty? [The insect referred to, is, in all probability, the larva of one of the *Cassidadæ*. These larva are broad and oval, with a kind of fringe, composed of stiff prickles, surrounding the thin edges of the body, and a long forked tail, which serves to hold the excrement when voided; a mass of which, half as large as the insect, is often thus accumulated. The tail, with its loaded forks, is turned over the back, and thus protects it from the influence of the sun, and probably also from its enemies.]

Last fall I obtained from a seed store in New York, a peck of what was sold for Golden Australian Wheat, at the outrageous price of $4 per bushel. It was badly winter killed, and what survived turned out two kinds of wheat. The one ripened sooner than the other (which I take to be the genuine,) and rust setting in, both had to be harvested, though the Australian was yet green: consequently it is badly shrunk; but I have sowed it again nevertheless, intending to give it a fair trial in this latitude.

It is really too bad, that our seedsmen allow themselves to be imposed upon in this way, and injure their own reputation by selling an impure article for genuine, and at such a price. A. H. Kummel. *Sharon, Wisconsin, Sept. 20, 1853.*

Clover and Timothy.—Is it best to seed down land with clover and timothy? The value of clover principally resides in the leaves and the flowers; but that of timothy in the stem, where sugar is elaborated. As the leaves of the latter are of small account, and as it ought to be be cut three or four weeks later, ought these plants to grow together?

When is the best time to sow timothy? D. T.

Horse Bone Lime.—Inquiry.—Amongst the various articles that have made the pages of the Cultivator so interesting to myself for the last five years, I find none on the advantages of horse bone lime as a fertilizer; will you, or some of your correspondents who have tried it, please give us the results of your experiments. The *horse bone stone* abounds in some sections of the state, and you will oblige us very much by giving an analysis of this most potent lime, and its adaptation to agricultural purposes. Jos. Hudleston. *Frankfortville, Herkimer Co., N. Y., Sept., 1853.*

We know nothing of "horse bone stone." If any of our readers can furnish the information asked for, we shall be glad to receive it.

Hereford Herd Book.—*D. M. B.* This work is not, to our knowledge, to be had in this country.

Advantages of Drilling Wheat.

The following distinctly detailed experiment in drilling wheat, was furnished by a correspondent to the N. Y. *Tribune,* and is only a fair sample of many others. A striking proof of the benefits of drilling, is shown by the rapid introduction of the drilling machines all over the country, an introduction they never could have met with, in the face of high prices and saving farmers, had they not possessed substantial and plainly discovered merit.

"Two years ago last fall, John Sickman, an intelligent farmer of Wayne county, purchased a wheat Drill, and resolved to test it fairly. His neighbors were deeply interested in the project. Some laughed at, and some encouraged him. A committee was chosen; a given number of acres chained off—one-half the wheat was sown broadcast, and the other half planted with the Drill. The following summer, when the wheat began to put forth heads, the field was an object of much speculation. Many said the broadcast was as good as the drilled, but those who carefully examined the grain, proved that the drilled wheat was growing regularly—that of the broadcast irregularly. Harvest approached; the Conservatives were sanguine—but the friends of the Drill said, "If you get into the field, you will discover that the heads of the drilled wheat stand up side by side, and nearly every one has six rows. The broadcast wheat has but few stalks equal in height, and some have only four rows of grain in the head. Wait till harvest, gentlemen."

When the wheat was cut and separately threshed and measured in the field, it was ascertained that from the half which had been drilled, there was a yield of 43 *bushels to the acre*—from the half sown broadcast a yield of 32 *bushels,* showing an advantage of *nine bushels to the acre in favor of drilling.*

"So well satisfied with this experiment was Mr. Sickman, that the following season, in order to get drilling introduced among his neighboring farmers, he offered to purchase a drill worth $75 for one of them, if, out of 25 acres he had to put in wheat, he would sow one acre broadcast, and drill the residue, and give him, (Mr. S.) what grain was gained over that sown broadcast.

◆

Requisites for a Good Farm.

The committee appointed by the Jefferson County Agricultural Society, to award the premiums on Farms, made a most valuable report at the late exhibition of the Society. They state that in viewing the farms entered for premiums, they endeavored to keep in view as standard requisites and evidences of good farming, the following points:

1. A good soil, well tilled, and kept free of various weeds, both on the fields and in the roads.
2. Lots well fenced, and suitable in number to the size of the farm.
3. Substantial and convenient barns and stables of sufficient dimensions to contain the produce of the farm, and to comfortably house the cattle kept on it.
4. A judiciously arranged dwelling, in neat condition, with a well and filtering cistern.
5. Convenient buildings to facilitate the economical management of the farm; among which may be enumerated a wood-house, a wagon and tool-house, a workshop, a granary and corn-house, a convenient piggery, an ice-house, ash and smoke-house, all secured against decay by being well raised from the ground and neatly painted or white-washed.
6. Convenient yards attached to the barns and stables, so arranged as to prevent wastage of the liquid manure, well sheltered from the blasts of winter, and provided with water for the cattle.
7. Door-yards laid with grass, and rose and flower-beds, and shaded by ornamental trees, indicating to the passer-by the dwelling of taste, health and comfort.
8. A kitchen garden highly cultivated, and containing every species of vegetable that can be raised in our climate, with strawberry and asparagus beds.
9. A fruit garden or orchard, where choice apples, cherries and plums are carefully cultivated, and where can be found neat rows of raspberry, gosseberry, black berry and currant bushes.

◆

Price of Wool.

A New-York correspondent of the Albany *Evening Journal,* under date of Oct. 10, speaks very discouragingly of the prospects of the wool market. He says:

The market is very dull, and appears to be gradually growing more and more depressed—presenting a very different aspect from the corresponding period of last year. Prices are already 5 to 8 cents lower than when the clip was first brought into market; and where the decline is to stop, is a question which is very anxiously considered.

It is the opinion of large holders that it will continue to decline till the next clip. In proof of this, they are offering it at reduced prices, on long time.

There are several causes operating towards such a result. Among the prominent ones is the very limited demand. Owing to the extreme stringency and unfavorable prospects of the money market, dealers cannot be induced to touch it on speculation, even at much lower rates. Manufacturers—confident that, if not lower, it cannot be higher—buy sparingly, and no more than is required for immediate use; and sales of goods having dropped off, and goods accumulating, with an uncertainty of their starting at as good prices when they do sell, confirm them in the determination not to purchase, except at reduced prices. Another cause, which has probably not been generally known in the country, is the large amount of rag-wool being used and constantly increasing. The use of cotton, which has been increasing for the yast year or two on account of the high price of wool, was never larger than at this time; so that in the manufacture of low grades of goods, but little pure wool is consumed.

It has been considered by some that there is a short supply of wool, but a slight examination shows this not to be the case. The amount of old wool, pulled and fleeced, now in the New-York market, is larger than it has been on the first of May for the past three years taken together; and besides the stock of new in regular houses, there is, which was not the case last year, a large amount on consignment in the grocery and dry-goods houses.

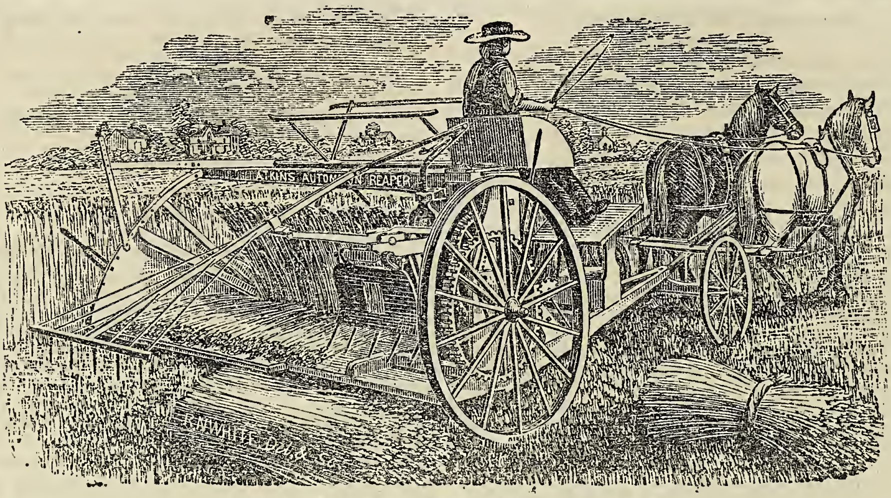
Great efforts are being made to carry it along, by moving it from one loft to another to obtain advances, so that a large amount will be pressed upon the market at no very distant period. Yours, &c.

We quote the nominal prices:—

Full blood Saxony	53	a	56
Full blood Merino	50	a	52½
¼ to ¾ do	47½	a	50
¼ to ½ do	42½	a	45
Com. qu. do	37½	a	40
Extra Pulled	47½	a	50
Super. do	45	a	46
No. 1, do	36	a	38
Lambs'	40	a	44

◆

Absorbtion of Water by Soils.—Schubler found that during a dewy night, 1000 lbs. of clean and perfectly pure sand did not absorb a pound; calcareous sand, 2 lbs.; loamy soil, 21 lbs.; clay loam, 25 lbs.; such as were rich in vegetable mold, still more; while peat absorbed more than either. Davy found the same quantity of very fertile and perfectly dry soil, gained 18 lbs. in an hour; a good sandy soil, 11 lbs.; a coarse, inferior sand, 8 lbs.; a sterile gravel, 3 lbs.



Atkins' Automaton or Self-Raking Reaper.

For notices of this machine, see former numbers of the Cultivator. We learn from Mr. J. S. Wright of Chicago, the joint proprietor of the patent, that it has been used quite extensively the present season, with entire success.

Manuring Land.

It is a matter highly interesting to every farmer, and one that should be closely investigated, whether the high manuring of land, especially for Indian corn, recommended by some agricultural writers, and advocated by those who address societies for the promotion of agriculture, and which is also the invariable guide in awarding premiums, is the best course to be pursued by farmers, or one that will, to the greatest degree, improve the condition of the farm. A judicious system of manuring is necessary to ensure remunerative crops. The practical farmer should take into view his whole farm, and look to the general good of all his acres, rather than have an eye to one or two, to raise a great crop "to tell of," at the expense of other parts of the farm.

Mr. Clift, in his address before the Windham County Agricultural Society, (Ct.) some extracts of which are found in the Cultivator, August No., says, "The average produce of corn, per acre, in the state is not over forty bushels. The experiments of educated farmers in Massachusetts, and in other New-England states, have demonstrated that a hundred bushels or more can just as well be grown upon the same acre." We will admit that this increase may be attained; and yet the question in point is, is it best for the occupant or the farm? The same Cultivator gives extracts from reports of the New-Hampshire State Agricultural Society:

"The crop of James A. Cook, of Cornish, yielded 96 bushels per acre. It was manured first with 50 cart loads of manure per acre, plowed six inches deep, then 50 loads of compost, plowed three inches deep, and 20 loads of hog manure and compost in the drill." Here we have 120 loads of manure to raise 96 bushels of corn!

Probably Mr. Cook had vast resources to obtain manure, and did not neglect other fields that were calling loudly for warmth and nourishment. But it is not so with those who occupy the small farms on the hill tops and in the valleys of New-England. They may exert all this energy and exhaust all their resources, and still the manure heap is small indeed, far too small to enrich the impoverished fields, some of which are to be found on almost every farm.

To illustrate the subject before us, we will take two of these small farms of 100 acres each, 33 of which on each is at times under the plow. Each occupant can make but 100 loads of manure yearly more than is wanted for the garden and kindred purposes, or in other words, each has 100 loads to apply to his corn crop. Mr. A. goes in for a great crop per acre, and of course puts all his manure on that acre; he plants in drills in order to obtain the greatest yield, consequently in no small degree augments the amount of labor in planting and tending the crop. He harvests his 100 bushels of corn. The next spring (as the usual rotation in many parts of New-England is corn, then oats, and seed down with clover and timothy,) he sows his one acre to oats; they grow luxuriantly, promise fair, but an over stimulous induces so rapid growth that they fall, blast, and yield but an indifferent crop, say sixty bushels.

Next year comes his grass—a great growth, coarse, injured by lying on the ground, a yield of perhaps five tons per acre. A. pursues this plan, takes up and manures in this manner one acre each year, and will be thirty-three years before he gets round to his first field.

B. takes a course somewhat different, but follows the same rotation. He applies his 100 loads to three acres, plants in hills, and cultivates well. The hand labor for the three acres being about one-third more than A.'s one acre, plowing and harrowing two-thirds, drawing manure about equal. B. harvests 50 bushels per acre, making 150 bushels. He gets a good crop of oats, not so large as to fall and spoil, say a yield of 40 bushels per acre, making 120 bushels. He obtains two and one-half tons of hay per acre, of good quality, making seven and one-half tons. B. gets round and takes up his 33 acres once in ten year.

Now, it is for the intelligent reader to judge whether Mr. A.'s or B.'s system is the best calculated to promote the interest of the farmer. We find that on many farms, fields want taking up and manuring as often as once in six, eight, or ten years, in order to secure a fair crop. I believe in manuring well, and cultivating well. Experience has shown me that 30 to 33 loads (ox cart, 35 bushes) of manure per acre, with good culture, will produce a yield of 50 to 60 bushels of corn, even on the hill tops of Connecticut. I think there is a gradual increase in the average yield of corn per acre in Ct., and that it will continue to increase I doubt not. I have often thought that the farmer that occupies the cold, rocky lands, far back in the country, away from markets and the advantage of obtaining manure from large towns or cities, who has increased his average yield of corn per acre from 30 to 50 bushels, is as much entitled to commendation or premium as the one that occupies the rich alluvial soil, for which nature has done all things, and who has in addition the advantage of obtaining from cities the means of enriching his land, and produces his 80 or 100 bushels. Samuel F. West. *Columbia, Conn., Sept.* 1, 1853.

High Culture and Good Management.

The farm of Sir John Conroy, near Reading, England, comprises 270 acres, all in one huge field, the only fence being the one that separates it from its neighbors. All the intervening hedges were removed by the present owner, when he came into possession, seven years ago, and the land was drained four feet deep, at distances varying from fifteen to thirty feet, which we should call very thorough work. It was then trenched with the spade to a depth of twenty-two inches. The whole cost of these improvements amounted to £3,000, or nearly $15,000—something over $50 an acre. In this country subsoil and trench plows would much cheapen the trenching. Most of the subsoil appears to have been a sort of hard-pan gravel. As a proof of the necessity of draining, drains from some forty acres of the driest of the farm, lead out at a low place where water is seen running at the driest part of the year.

Prominent among the farm machinery, is a beautiful steam engine of ten horse power, which drives a very complete threshing machine, with two fanning mills attached, barley pummeler, &c. It also drives an oil cake crusher, turnep cutter, grain bruiser, and everything required in preparing food for stock. A passage in the building leads directly from the preparing room to the horses' heads for feeding them. Their food consists, for each for 24 hours, of eight pounds of cut hay and ten pounds of cut straw, five pounds of oats, and one pound of bean meal, moistened with one pound of bruised linseed, steeped forty-eight hours in fifteen pints of cold water. The oxen are fed on similar food, but less stimulating, the oats being replaced with plenty of turneps, and with a portion of oil cake. Large herds of oxen, sheep and swine are purchased and fattened every year, the stables and buildings being supplied in every part by means of pipes with an abundance of water. Nothing but one horse carts are used on the farm. The wheat yields from twenty to forty-eight bushels per acre. The grain stacks are to be built on trucks on a railway, so as to be run up to the thrashing machine as fast as wanted, a practice already adopted on some of the best English farms.

Timber for Posts.

The best timber for posts, in the order of durability, is red cedar, yellow locust, arbor vitæ, (or white cedar of some places,) white oak and chestnut. Charring posts of the more perishable sorts to render them durable, is of little use ; for the charred portions are made brittle, and the only part of the post possessing strength, is the interior, which is as liable to the changes of dryness and moisture as ever, through the porosity of the charcoal. Salting posts—by boring a hole obliquely downwards at the surface of the earth, and plugging in salt, is far more effectual. Cases are known in this country, of red cedar posts nearly a hundred years old, perfectly sound.

Cutting and Steaming Fodder.

I would ask for information from you, or some of your correspondents, as to the profits to be derived from cutting and steaming hay, and other coarse fodder for cattle. I keep a dairy of forty cows, and would like to winter them with cut and steamed feed, if it would pay labor and other expenses. I would also be obliged if you would give in the Cultivator as soon as convenient, the best kind of steam apparatus in use. I would like to fix my steaming apparatus some four rods from my barn, and carry the steam pipe in a box under ground to my barn, if it could be done without having the steam condense. W. A. Mayborne. *Mayville, Chautauque co., August*, 1853.

Several experiments have been made on the saving effected by the use of chopped hay and straw, but few of them have been conducted with much accuracy. The general belief of those who have given the practice a thorough trial, is that a saving of about one third of the amount used is effected by the use of the straw cutter, partly by assisting mastication, and consequently effecting a more thorough digestion, and partly by admitting the mixture with hay of chopped straw, a cheaper article. We are not aware that any accurate experiments have ever been performed in this country, on the specific benefits of steaming fodder. A few who have tried it, have been favorably impressed with its advantages. We are unable to furnish a description of the best steaming apparatus. Will some of our correspondents who have had experience, do us the favor to furnish one ? There would be no difficulty in conveying the steam to some distance, and probably the best way would be to use a *bright* metallic pipe, (as sheet tin,) enclosed in a board box, and surrounded with chaff, saw-dust, or other non-conductor of heat. We have known of a farmer who cooked his chopped food in a small way, by placing it in an oblong wooden box, then pouring on a portion of boiling water, and immediately covering it with a tight lid. When cold, the food was found to be cooked by the steam from the hot water; but there is no doubt that the process could be much better effected if the steaming were longer continued by means of successive supplies from a boiler.

Letters on British Agriculture.

[As we cannot publish in the Cultivator, the whole of the series of letters on British Agriculture, now appearing in our weekly paper, the Country Gentleman, we shall give such extracts as our limits will permit, selecting such parts as seem to contain suggestions of the most importance to American farmers.]

ADVANTAGES OF LARGE FIELDS.

L. Tucker, Esq.—Among the causes which have contributed to the results of British agriculture, is *the enlargement of the lots or fields into which farms are divided.* You are aware that the hawthorn hedge is almost the only fence in England. This is true also of Scotland and Ireland, with the exception of some rocky portions, where stone walls are adopted. It is estimated that these hedges are, on an average, at least ten feet wide. Some of the best English farmers have told me, that when we consider how far the roots are known to sap the ground, 12 feet are little enough to allow. Others say that if you allow a rod, it is little, if any, over the truth. The old practice was to divide farms by these hedges into many small lots, often not more than two or three acres, and from that to eight or ten. I see that in those parts, where a reform has not yet commenced, those lots are generally very nearly square, and consequently are inconvenient to plow, especially with from two to four horses, one before the the other, as the English practice is. Four acres in a hundred have been lost by thus cutting land into too small lots, and making the hedges too numerous. In large portions of the country a reform has commenced. The superabundant hedges are fast disappearing.

But nowhere is the improvement, in this matter of ousting the hedges, thinning off the vermin that took shelter in them, and letting in the sun upon the crops morning and evening, so manifest as in the south of of Scotland. Hence, instead of little square fields, separated by wide hedges, occupying one twenty-fifth of the land, and shading twice as much more, you see oblong fields of from ten to one or two hundred acres. The lands in the Lothian counties, which have been thus cleared of hedges and distributed into long instead of square enclosures, are now renting the highest of any in the British empire—as high in some cases as £6 (nearly $30) an acre. When this process shall have been carried through, the country may appear less picturesque in the eyes of some tourists; but to the sound economist, it will appear more beautiful; and certainly it will be far more productive. American farmers have not to contend with old hedges. To the game and vermin sheltered by such hedges, they are, for the most part, strangers. But I would inquire whether, in some parts of our country, it is not the practice to cut land into too small enclosures? Is it not easier to cultivate ten acres in one field, than in three or four? and will it not produce more? If so, the profit of cultivation is increased in proportion as the fields are of considerable size. There is another objection to mincing land into mere bits—it requires too much fence; the farmer cannot keep so many lines of fence in repair, and a consequence is, that his cattle get unruly and his neighbors become impatient with him. There is a question connected with this subject, which I will not here discuss, but which deserves attention. It is, whether, in certain portions of our country, especially in grain-growing districts, where fencing material is scarce, all fences might not be dispensed with? I know that objections may be raised to this plan; but, if I am not mistaken, there are strong arguments in its favor.

TREES ON FARMS.

Another point of some importance, as connected with British farming, is *that of scattering trees in the hedges and open fields.* On lands devoted exclusively to pasturing, such are needed for their shade; and, scattered generally over a country, they add much to its beauty and picturesqueness. Especially is this the case in this country, where, owing to a damp atmosphere, the falling leaves soon decay and mingle with the soil, instead of becoming dry and littering the land and highways, as with us. Englishmen are justly proud of their old, spreading trees. Landlords often enter it in their leases, that no tree shall be cut down. Still, in those parts of the empire, where the farming is best, the trees are going. You now see but few trees in the wheat-fields of the low-lands of Scotland, for instance; and very few in the fields of such farmers as Mr. Pusey and Mr. Mechi. These men do not sacrifice their love for the beautiful in nature. They cultivate trees in their proper place. They are the last men, I suppose, who would leave a country naked and bald; but trees have no longer a place among their wheat and barley.

In our land of scorching summers, let there be trees. It would be barbarous to root them out from our cultivated fields, where they are injurious, without, at the same time, securing their growth in other places, where they are not only harmless, but pleasing to the eye, conducive to health, and often more profitable than anything else the soil will grow. Let them stud our pasture lands, as gems of beauty and of comfort. Our cattle need the means of coolness in summer, and warmth in winter. Only by attending to this matter, shall we ever approach that excellence in this department, which our British brethren have attained. More depends upon cherishing the breeds we have, than upon importing new. Let trees line our highways. Their roots and tops will be a little injurious to the bordering lands, but not much; the weary traveler and his beast will rest under their shade; our children will delight the palate from their produce; and our grand-children build their houses with the timber they grow. If our road-sides were adorned with a tree once in five rods, the rows alternating with each other, as far as convenient, the roads, with the exception of here and there a wet place, which might be intermitted if thought desirable, would not be a whit worse, and in many soils would be far better. If one-fourth of these trees were rock maples, they would furnish sugar for the population, whenever it should be cheaper to manufacture than to buy; and no one knows what future times will be. Rural dwellings should be adorned by shade trees. An *American* farm-house, under a sun shining intensely at least two hundred and fifty whole days in a year, is a very different thing from an English country residence, where the sun scarcely shines as many hours, and that mainly morning and evening. Yet the Englishman takes care to provide his residence with trees; the breezes that enter his windows come purified by a previous passage through dense foliage; while too often the American neglects to surround himself with these *conservators* of health and comfort; so that he and his family breathe air, not only scorching hot, but often surcharged with carbon and ammonia. An American farm-house, without trees at a little distance, (not so near as to produce injurious dampness,) is out of all taste, is unfavorable to health and comfort, and in utter disregard of the great law of adaptation to circumstances of situation and climate.

APPROPRIATION OF LANDS TO THE PURPOSES FOR WHICH THEY ARE BEST SUITED.

L. Tucker, Esq.—An important means by which the results of British agriculture are obtained, is *the* wise appropriation of lands to the purposes for which they are best suited.

It would save something in transportation and much time in traffic, if each farmer could produce breadstuffs, horse-feed, beef, pork, butter, cheese and eggs enough for home consumption, and then sell the surplus. This would be the best way, provided that all lands were equally well adapted to all purposes. It requires sound discretion to determine when this rule shall be departed from. The wants of the family and the adaptations of the land are to be studied conjointly.

English farmers seek a better reason for raising a particular crop or series of crops, than that their fathers did. They require a better reason than that their families will need the produce. As their country is small, and the means of transportation ample, they find it better to exchange produce with each other, than to appropriate lands disadvantageously. What kind of husbandry—what crops and in what rotation, is best adapted to different soils, is a matter which they have studied thoroughly, and which is pretty generally settled.

But as a general rule, their practice is founded on sound principles. They can show *a reason*. Especially is this the case in their appropriation of lands for particular purposes. In the Isle of Wight, and in the south of England, on the main coast, are extensive chalk hills. These, so far as I have seen them, are generally broad, continuous elevations, extending many miles in length, and seldom steep or abrupt, except where the action of the sea is undermining and breaking them down; as in the Isle of Wight. They are called "downs;" and, as you are probably aware, have given name to a favorite breed of sheep extensively grown in the southern counties, of which the name "black faces" would be more characteristic than that of "South Downs." The soil in these hills is generally thin, often not more than two or three inches in thickness; and it lies in a subsoil of chalk and flint stones. Consequently it is unfit for the plow, and is appropriated to the grazing of sheep. The soil is of a quick, active nature, producing a fine sweet grass, of which sheep are exceedingly fond, and on which they fatten admirably in the summer, and will live pretty well during the whole winter by being "helped out," as the people here say, by a little hay or a few turneps. In making a pedestrian tour, with an American friend, in the Isle of Wight, I passed along one of these downs from Brading to Arreton, some six miles. The vallies on each side exhibited the most beautiful cultivation I ever saw. The reform of which I spoke in my last, had here done its work thoroughly. Clusters of trees here and there adorned the landscape; but none infested the wheat-fields. The hedges, except enough to divide the land into lots of forty, fifty, or sixty acres, had disappeared. The distance from the cultivated fiields on the north to those on the south might have been two miles. On the rising ground between, were feeding thousands upon thousands of sheep and lambs, all South Downs, or a cross in which the features of the South Down were dominant, and so far as I could learn, all in the care of a single shepherd, whose cottage was central between Brading and Arreton, and was the only dwelling-house on a territory five or six miles in length and two or three in width. I then believed, what I had heard before, that the Isle of Wight sends immense quantities of the finest mutton to London. I do not mean to imply that sheep farming is confined to such downs. Almost all farmers in this country have sheep, more or less. In grain-growing districts sheep are employed to feed off the turnep crop, and thus prepare the ground for the crop that is to follow. But the downs are devoted almost entirely to the growing of mutton and wool; and it is undoubtedly the wisest disposition that could be made of them.

On the other hand, certain interval lands, as the valley of Aylesbury, are appropriated to the grazing of cattle. John Lee, LL. D., of Doctor's Commons, London, but the owner, and a part of the year the resident, of Hartwell House, in Buckinghamshire, invited me to visit him on his estate, in that county—said he knew something of farming, and that his men, some of them, knew more; and he would put me in the way of seeing some of the most sensible farmers in that part of the country.

The bailiff told me that Dr. Lee's estate extended thirteen miles in one direction and about two in the other—said he was a good master, probably the best in England, and was beloved by all the tenants. He introduced me to four large farmers on the Doctor's estate. One of them, Mr. Richard Loasley, is entirely a grazing farmer. The others are mainly so, but grow a little corn. Mr. Loasley's farm contains, if I recollect rightly, a little less than 300 acres, and is, as he supposes, as good land as there is in the world for grazing; but he thought would not be remarkably good for any other purpose. He said it had not been plowed for a hundred years certainly, and he knew not how much longer. He would not have it plowed for anything; could not get as good a turf on it in fifty years if it should be plowed up. Besides, he was bound by his lease not to plow it. I asked him if it would produce more by the use of bone dust or any kind of manure? He said it did not require it; it produced well enough without. I asked him how many cattle he had kept in the lot where we were, which contained sixty acres. He could not tell; was buying and selling all the time; had no regular number; but thought that field would keep a cow and three or four sheep to the acre. I asked him if the setting apart such beautiful land, where there was no obstruction to the plow, to perpetual pasturage, was a common thing in England? He said there was very little as good land, perhaps none; but there was considerable land, which all experience taught would produce more net profit as pasture than in any other way, and when this was the case, he asked, why not pasture it, and why not forbid it to be plowed, in the lease? What this man said has been confirmed to me by others. There are certain qualities of land here, which will produce sweet and abundant feed perpetually. These are appropriated to the dairy or the making of beef. If the former, they are dressed with bone dust to resupply the phosphates carried off in the milk; if to the latter, there is little need of any dressing, other than the animals give them. It should be kept in mind that owing to the cloudiness and dampness of the climate, the droppings of animals are incorporated with the soil far more perfectly than with us. What surprises one not accustomed to this state of things, is the almost perfect evenness with which the pastures are fed; if fed closely, they are close in every part; and if there is rank feed in a pasture, it is about equally so all over. Mr. Loasley's cattle were of various breeds. He buys when and where he can buy to advantage, but prefers the larger breeds for this land. I never saw finer Durhams, except at the Gloucester show. Such pastures, I think, go far to account for the surpassing excellence of the English cattle. Mr. L. is confident that the large cattle consume less in proportion to their growth—thinks they are more profitable than smaller ones, on his land; but that they would not do well everywhere. Not only the wise appropriation of lands to the various purposes of grazing, but the selection of animals suited to each district, is aimed at and measurably obtained by British agriculturists. It is so with other branches of husbandry; and I would gladly dwell on this point did space permit. Their lands are subjected to one or another rotation of crops, to this or that mode of cultivation, with a wise and far-seeing policy, which in no small degree accounts for their success. Yours truly, J. A. Nash.

Green Manuring.

What is the value of buckwheat in comparison to a good field of clover when plowed under for a crop of wheat, either by experiment or analysis? Also, of corn sowed and turned under for the same purpose? We frequently fail of having clover catch well; then we need some substitute. For raising wheat, please also state what quantity of buckwheat or corn you would advise to sow to the acre, to be plowed under. If it is known what ingredients buckwheat contain, and what quantity of the same is needed for a crop of wheat, please give the information. Orrin Orton. *Fallschurch, Fairfax County, Virginia, Sept.* 1, 1853.

We do not know that any analysis of the *straw* of buckwheat has been made, from which we can procure the desired information. This crop is very easily and quickly raised for green manuring, but in real value is far inferior to clover. Corn sown thickly has been but little tried for this purpose, and although doubtless inferior to an *equal weight* of clover, yet as about *double* the amount may be usually raised on the same land, it may yet be found very valuable. As corn is a plant that is much accelerated in growth by *cultivation*, we have always found best to sow it in furrows before harrowing in, so that a cultivator may be passed between when a foot high. This method also requires less seed, and the seed being scattered in a furrow, is more completely covered with the harrow. To plow it under, first harrow it *across* the drills. Three bushels of corn as seed to the acre will afford one fourth more weight of crop than two bushels. For buckwheat, the amount commonly sown for raising the grain will be best.

We are greatly deficient in *accurate, measured experiments*, to show the relative value of different crops for green manuring, and we should be glad if a few intelligent cultivators would take it up, and give the subject a thorough and careful trial.

Subsoil Plows—Farmers' Clubs.

I have been for some time purposing to get a subsoil plow. The trouble is that my farm is small and I have but one team. Now the advertisers of the "Michigan sod and subsoil plow," say it does the work of the common and the subsoil plow, and that it requires no more draft than the common plow. If so, I will get one. What is your opinion of it? We are endeavoring to get up a Farmers' Club here. Will you send me a copy of a constitution of some Club, or give me such instructions as you may think proper. C. N. B. *Orient, Suffolk Co., N. Y., Sept.* 13, 1853.

The Michigan plow, which is strictly a *trench*-plow, is a capital implement, but it requires nearly double the amount of team to draw it, that is needed for a common plow of corresponding size. In turning over old pasture *eleven inches* deep, (which is about twice the depth of common sward plowing,) we have found it necessary to employ three yoke of oxen; and about the same force was requisite in plowing stubble land to a depth of one foot—the soil being a sandy and gravelly loam, not clayey enough ever to crack in drying. If a two horse subsoil plow were made to follow a common plow, we have no doubt that one foot of the surface would be made so mellow, that two yoke of oxen or four horses would run the Michigan plow through with ease.

The two separate slices cut at the same time with the Michigan plow, enables it to attain a given depth with less force than is needed for a single plow of like depth, or with one plow following in the furrow of another.

Will some of our subscribers who have had experience in the management of Farmers' Clubs, please furnish briefly the substance of a constitution, or such practical points as may prove useful?

Cure for the Potato Rot.

In a recent conversation with Mr. John Barrett, Jr., of Cayuga Bridge, on the subject of the potato disease, he informed us that he had not been troubled with the rot for some years, and that there was an easy remedy for it, which all might apply with very little trouble or expense. On inquiring for this simple remedy, we expected to have been told that it was a *secret*, to be revealed only to those who were willing to contribute a handsome reward to the discoverer. But Mr. B. freely gave us his experience, which we as freely impart to our readers, leaving it to them to make the experiment, if they think proper.

Mr. Barrett stated that a few years since, he, as well as most of his neighbors, lost their entire crop of potatoes by the rot—that the next spring he was compelled to go to another town for seed, where he procured a supply for himself and an adjoining neighbor, and where he was told how to prevent the disease. He said he and his neighbor planted the seed he procured on adjoining fields—the soil and treatment similar—only that Mr. B. applied the remedy recommended to him—which consisted in *sowing ashes* over the field once a week for six weeks, commencing shortly after the second hoeing of the crop. He used from two to three bushels of ashes per acre, which is sufficient to give the potato-tops a good dusting. The result was that his field was entirely free from the disease, while the potatoes on the adjoining field, without this application of ashes, rotted badly. Since then, Mr. B., as well as most of his neighbors, had applied ashes, and had been entirely free from the disease.

Addison Co. (Vt.) Fair.

The annual Agricultural Fair of this County, was held Oct. 5. The exhibition of stock was unusually large and excellent, and what one might expect from the home of the Vermont Black Hawk horses and fine thorough-bred sheep.

Sheep—The show of sheep was very large and excellent. There was a fine show of the French Merinoes, by S. W. Jewett of Middlebury, the extensive importer of this breed, so favorably known to the public. The number of Spanish Merinoes exhibited was much larger, and of unrivalled excellence. The exhibitors were E. Hammond, Middlebury; David G. Cutting, Shoreham; W. Remelee, E. Sanford, F. H. Dean, A. J. Wooster, Cornwall—and many others.

There were several pens of crosses between the French and Spanish Merinoes, which were very splendid sheep; among the best of them, we noticed a pen exhibited by T. B. Holley, of Cornwall. There was also of long wooled and mutton sheep a very fair show. It is unquestionably true that no County in the Union can show so many good sheep as this.

Cattle.—There was a large show of cattle, some of them very fine specimens. Among others, we noticed very fine Devons by Wm. R. Sanford, of Orwell, and Durhams by H. Plumley, of New-Haven; C. L. Smith, of Bristol—and others.

Horses—The show of horses was unprecedentedly large and excellent; most of which were descendants of the patriarch "Black Hawk." Among the older horses of this family we noticed very fine stallions shown by G. A. Austin, Orwell; R. M. Wilcox, Shoreham—and others.

Of four years old stallions, there was a very excellent display by Rider & Myrick, I. D. Fletcher, D. S. Myrick, Bridport; G. V. Cook, New-Haven; C. A. Lewis, Cornwall—and others.

A three year old, which can go his mile inside of three minutes, was shown by D. S. Myrick, Bridport; and other very fine colts of this age by Dr. G. T. Gale, Bridport; G. V. Cook, New-Haven; O. Russell, Shoreham—and other exhibitors.

Of two-year old stallions, a splendid show was made by numerous members of the society; among which were N. Grosvenor, H. Hamilton, Dr. G. T. Gale, C. N. Hayward, N. Lee, C. Crane, Bridport, and M. S. Doty, Salisbury. We noticed several very fine brood mares, and one very superior, of the "Hickory" blood, shown by Dr. Gale, which drew the first premium.

In short, the exhibition was one which every admirer of good horses would have gloried in, and demonstrated the "Black Hawk" horses to be unequaled by any other race.

The show of Fowls, Swine, Manufactures, &c., was well indicative of the entire Fair, and all gave evidence of the skill and perseverance for which the farmers of Addison Co. are proverbial. D.

State Fairs.

The Ohio State Fair was held at Dayton, on the 20th—24th of September, and was eminently successful, the grounds and fixtures all being in the best order; the weather fine, and the attendance large. The exhibition of live stock is said to have been superior, while in some other respects it did not equal, some of the previous fairs. The Address was delivered by Governor Wright, of Indiana, whom we had the pleasure of hearing at the Vermont State Fair, and "was plain and practical, and eminently adapted to the occasion." The receipts were about $14,000. Among the prizes were 152 silver goblets, 64 silver pitchers, 125 silver medals, two of gold, $50 each, and 75 of bronze.

The Rhode Island State Exhibition was held at Providence on the 20th and 21st of last month. The show of stock and of agricultural and horticultural products was large, and of a gratifying character. The trial of Ketchum's Mowing Machine attracted much attention, and performed its work in a most satisfactory manner. There was a great show of working oxen, a team of 170 yoke appearing in the procession.

Improved Mowing Machine.

The *Scientific American* speaks in pleasing terms of an improvement in mowing machines, for which a patent is being received by Martin Hallenbeck, of this city. It consists in placing the sickle or cutter at the back of the driving wheel, and attaching the draft pole to the machine out of line with the driving wheel, and at the side of the driving wheel towards the sickle. By this arrangement the line of draft is made to counteract the resistance which the grass offers to the sickle; the sickle consequently moves forward in a steady manner, keeping in the same line; the machine thereby being made to proceed with a very steady motion. The fingers of this machine for holding the grass are peculiarly constructed, so as to prevent the grass from being forced out from them when acted upon by the sickle; the recesses in the fingers are also prevented from being clogged or filled with dirt. The sickle is also secured above the fingers by a metal plate in a very superior manner.

Field Beets.

A notice of the mode of raising field beets and of using their leaves for soiling cattle in summer and autumn, as adopted by U. E. Dodge & Co., of Dunkirk, has appeared in some of the papers lately. The outer or first leaves of the root, it is stated, soon begin to decay and drop, and are of no further use to the growing root. These outer leaves are therefore stripped off as soon as they are fully developed—and of which a man will collect a bushel in five minutes—and given to cows, constituting for them an excellent succulent food. The practice is continued for two or three months, with no detriment to the crop of roots. It is added, that the food of six cows for three months may be thus obtained from the leaves of an acre of beets. This seems like an extravagant estimate, and we give it for what it is worth—it may furnish suggestions for future experiments.

In commenting on the statement, and in allusion to the alleged value of the beet leaves as food for milch cows, the *American Agriculturist* says that according to his experience they have invariably produced scouring in the animals fed upon them, whether fed to cattle, sheep or swine; and that salting, or mixing with other food, did not prevent this result. The same paper adds, that the roots have been found to keep best in heaps of about 100 bushels each, well ventilated with several holes at the top, as they are apt to grow in mild weather in winter if kept too close and warm.

Mechanics *vs.* Farmers.

Messrs. Editors—It needs but little discernment and research, to arrive at the fact that the farming community, as a body, are far behind the mechanical profession in making those advances in the calling to which they are attached, which its importance absolutely nequires. The mechanic studies to become acquainted with improvements of the day, and the nature of his business; hence he husbands his time to the best advantage; he compares and analizes ideas with those of his profession. Two dollars a year for a well conducted journal, treating on the arts and sciences, he considers is as necessary to his business, as clothing or food is to the body; and in addition he must have a library of choice reading, its well drawn plates delineating the improvements made from time to time. Thus his leisure hours become his study hours, diversifying his time and storing his mind with useful and entertaining knowledge.

Now it is not to be wondered at, under such circumstances, that the farmer looks upon the mechanic as enjoying life in a preferable degree to himself. When the farmer looks into the workshop, he sees all regularity; all goes on with the precision of clockwork; he sees theory based on practice, and knowledge on experience, growing out of experimental tests which give facts as the result. While the farmer sees this, he looks with distrust on his own pursuit, and as his eyes wander over his farm, he sees that same old hedge occupying that same prominent position it did when he inherited it from his father, years and years before. His fields are covered with stones and rocks, bearing abundant marks of the plow and drag, showing to a great degree his inexhaustible patience in suffering them stubbornly to remain as nuisances, when they might be made useful in protecting his crops, and save one half the wear and tear in cultivation. Slough holes look as unseemly and unpromising as they did when he was a boy. Cold and springy places flinging up their growth of moss and wildness, when only a little trouble in under draining would not only remove those disagreeable witnesses of sloth and negligence, but render them the most productive parts of the field. His crops resemble those seen in Pharaoh's dream, "withered, thin, and blasted with the east wind." Well says the farmer, as each year gives up its scanty return, what shall I do? I delve and work hard, early and late; I economise close; I neither spend time in running about the country, nor my money for worthless agricultural papers teeming with visionary speculations. But the truth says he, may as well come out first as last; farming is hard business. Poor fellow! And yet how many are to be found of the same kind; living monuments, brooding over their own ignorance; exhibiting abundant proofs of the narrow contracted sphere in which they move. And yet evidences of this kind are neither few nor far between. The fact is, the farming community of this country bear a pitiable front. Our farmers are in general well read, and well informed on other subjects than those connected with their own interests, and their own pursuits. The theory and practice of politics is well read and understood; the relative position of nations one with another are strictly canvassed. But in farming pursuits, darkness rests like an incubus on a great part of the farming community, rendering them almost entirely ignorant of the true principles of those agencies that might be brought to bear in renovating land, and maturing crops. The fact is, the mind of the farmer wants to be as elastic and expansive as the mind of the professional man. We lack in reading; we rank below our calling; we ought to elevate the theory and practice of farming, and make it a scientific study. No farmer should shrink back at the expense of taking an agricultural paper; he should have a well stored choice farming library; ha should make himself familiar with geology and chemistry. Treat and study farming as a science, and you will at once see farmers' boys studying to elevate their standard of character, and assume that position that the importance of their calling requires. B. T. *East Glenville*, *Sept.* 12, 1853.

Rural & Domestic Economy.

To Make Butter Come.

Messrs. Editors—That, in converting cream into butter, it should sometimes require little, and at others, great labor, is incomprehensible to most persons, and by the ignorant is not unfrequently imputed to witchcraft. It, however, may be laid down as a general rule, that whatever disquiets a cow, not only lessens her milk, but renders its churning less easy. This may be observed when cows are not regularly salted, or when changed from young to old pastures in the fall, or when fed on frost bitten grass, or suddenly changed from grass to hay, or from good to poor feed during winter. Under some of these causes it is sometimes impossible to produce butter in the usual way. The difficulty, however, is easily obviated, and most easily by using Crowell's Thermometer Churn. When the butter manifests a disposition not to come, a gallon of boiling water should be put in the lower chamber of the churn, and the crank turned from five to ten minutes. If there are buttery particles in the cream, they will appear to be melted. The hot water should then be drawn off and cold water substituted. A churning of about five minutes will then most assuredly fetch the butter. Such butter, when worked with judgment and care, may be made to be nearly as good as that produced in the ordinary way. A Farmer.

Drying Fruit.

[The following suggestion may be a good one, but we always feel most confidence in such as have been tested by actual experience. Objections often occur on trial:]

I have thought of a method to diminish the labor and expedite the business of drying fruit. To save the trouble and expense of making scaffolds, which is the great reason why so much fruit which rots in the fall and winter is not dried and saved, I would tie loops in the corners of a sheet, or cloth of any suitable kind or size, and drive stakes, at a proper distance, into the ground, sharpen them at the top, hang it on the stakes and spread on the fruit. On the approach of rains, they can at once and easily be gathered up and taken under cover. As cold weather approaches, six or eight sheets, one under the other, can be hung up over head in the kitchen, on little fastenings prepared for the purpose, and fruit spread on them. Thus the whole ceiling may be occupied until all the fruit devoted to the purpose, or beginning to decay, is dried. T. H. G *Sand Lake*, *October* 24, 1853.

The Tomato.

Will you please give information through the Country Gentleman of what country the Tomato is a native, and how long since it was introduced into the United States?

Did you ever eat a tomato pie? They are very good, made like an apple pie, or like a lemon pie, but better as a custard. In making tomato preserves, and especially in making tomato figs, there is much juice or syrup left; this is sufficiently sweet, and added to beaten eggs as one would add milk, makes a pie of fine relish. Yours, E. E. *Taftsville*, *Vt.*

The Tomato (*Solanum lycopersicum*, and belonging to the same genus as the potato and egg-plant,) is a native of South America, and was first introduced to cultivation in Europe in 1596, but how long it has been used for soups, sauces, ketchup, and pickles, we are unable to say, or when it was introduced into the United States. Our impression is that the French and Italians first adopted its extensive use, as it is said that during the early part of the present century, whole fields were seen covered with the crops, especially in the vicinity of Rome and Naples.

Water-proof Paint.

A writer in a late number of the Scientific American, who gives the initials of S. C., and dates at Lebanon, Ohio, supplies the following information with regard to paints, that may be useful to the readers of our paper:

Cheap and useful paint for roofs, walls, fences, outside plastering, etc., may be made by using tar—common tar or coal tar, made thin with spirits of turpentine. Let this be used instead of linseed oil, and to form the body add fine earthy matter, such as dried clay or soft burnt bricks ground fine in a plaster mill.

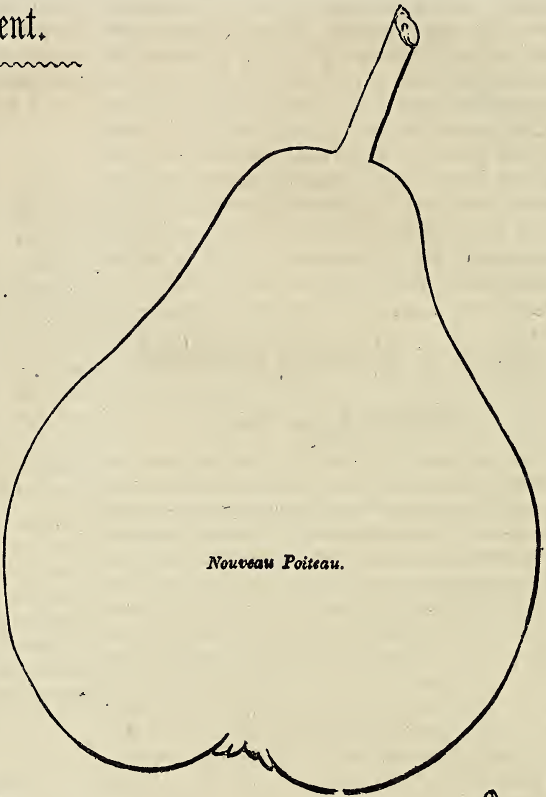
The soft shaly slates of different colors, like the "Ohio Paint," also answers a good purpose when finely pulverized, to form the body of the paint. For the coarsest kind of work, dry fine sandy loam may be used as a body. Any of these earthy bodies, when made sufficiently fine, can be used to good purpose in painting either with the tar mixture or oil. Plastered walls on the outside of buildings may be thus rendered water-proof and lasting by using the above cheap paints, and after one or two coats it will take but a small quantity of oil paint with lead, to make a fine finish with a single coat of any desired color. Whenever a surface thus rendered impervious by this cheap means, is painted over with oil and lead, a single coat upon the surface, instead of being absorbed, will dry in a thin tough film on the surface, and be more effective than three coats of the same paint upon an unprepared surface, which like that of common wood-work, absorbs the oil from the lead.—*Ohio Farmer.*

To Preserve Ripe Tomatoes.—To each quart skinned and pressed down tight add a quart of *brown* sugar, and boil them together for an hour and a half; then to each quart of tomatoes add one lemon in slices, with some ginger tied in bags, or you may use the extract, and boil it another hour and a half. Then take it from the fire, and cool it before putting it into the jar. Tie it up tight, and keep it in a cool place.

Horticultural Department.

New Pears.

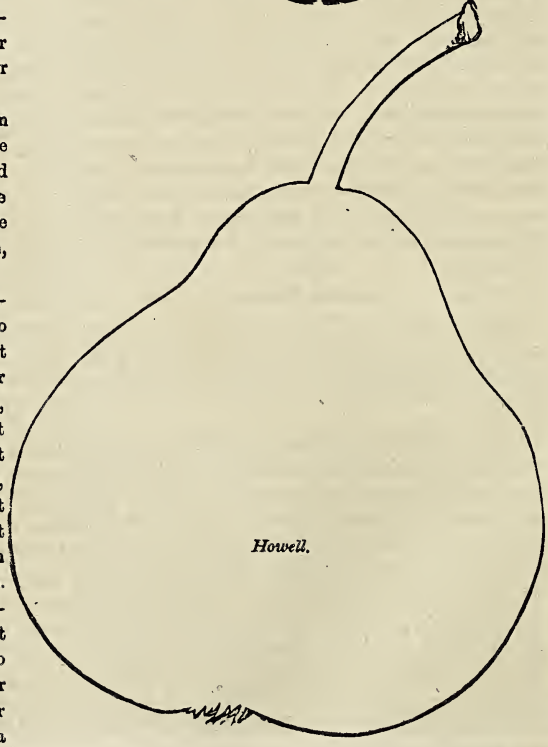
We present our readers with outline figures of a few pears of late introduction, which *give promise* of being valuable, for no new variety can be adopted without this reserve, for extensive cultivation. The trial of only a year or two may develope some excellent characteristics, but there are so many points that form a really valuable sort, as for instance, hardiness, productiveness, freedom from various defects in the fruit, and thriftiness of growth, some of which may not be fully perceived at first, or which may change as the tree gets older, that great caution should be used in making out a standard list from partial strangers.



Nouveau Poiteau.

Nouveau Poiteau.—This is a large pear, pyriform, with a broad crown, and rather narrow neck—the color a dull green, and when fully exposed to the sun with a brownish-red cheek. The flesh is melting and juicy, with a rich, sweet, and delicious flavor, with a melon-like aroma. Where it has fruited, it has been pronounced of first rate quality, giving promise of being worthy of the term "best, as adopted by the Pomological Congress.—The tree is vigorous and productive, and rather upright in growth. It ripens during the latter part of autumn.

This variety appears to succeed admirably in France, and we may therefore believe it to be one of general adaptation. It is figured and described by Leroy in Hovey's Magazine, where it is represented as twice the size of the figure here given, and as more contracted at the crown, like the Winkfield.



Howell.

Langelier.—Some of our most intelligent cultivators give this and the *Lawrence* as the two most *valuable* early winter pears, although not possessing the superlative richness of the Winter Nelis. The Langelier is of rather large size, obtuse pyriform, color light green at first, but becoming yellow when fully ripe, reddened next the sun, the flesh yellowish white, melting, juicy, fine-grained, with a moderately rich, excellent flavor. It ripens, if well kept, during the first half and middle of winter, although if too soon exposed to warmth, it will ripen late in autumn. The tree is of very vigorous growth—its productiveness has not, so far as we know, been yet determined. [The term *Beurre*, prefixed to this pear, and to at least one hundred other sorts, ought to be discarded by cultivators, for it is applied to pears of all kinds, except to a very few baking varieties, and has less definite meaning, if possible, than the word *pippin* among apples. Hence *Aremberg*, *Capiaumont*, *Deil*, &c., should take the place of *Beurre d'Armberg*, *Beurr. de Capiaumont*, &c.]

Howell.—This is an American variety, and originated at New-Haven, Ct. Although not of the highest flavor, its fine appearance and early productiveness, render it apparently well worthy of general cultivation. It is large in size, thick pyriform, with a broad round body, color a fine pale yellow at maturity, often with a faint blush next the sun—flesh melting and juicy, slightly sub-acid, with a fine flavor. The first specimens we ever saw of the Howell pear were given us by George Gabriel of New-Haven, at the first Pomological Congress in New-York, and were of only medium size; but all the fruit which we have seen grown in Western New-York, (two seasons) were decidedly *large*, some of them nearly double the size of the figure, which was drawn from specimens grown by M. P. Wilder of Boston.

* * *

Conservatories and Green-Houses.

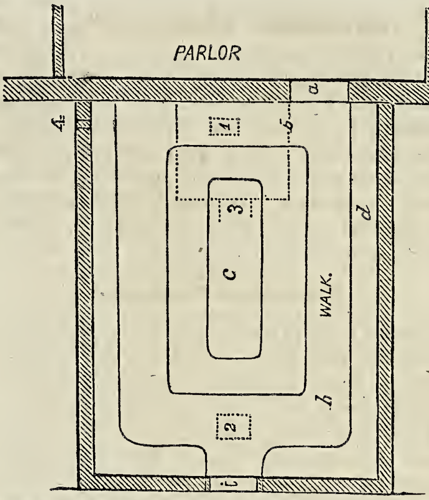
It is gratifying to the lovers of gardening, to find that many around this neighborhood are *building*, *extending*, or *repairing* their green-houses. We can name four different establishments under the two first, and several under the last, evidently signifying that Albany does not intend to be left behind in the higher branches of this delightful occupation. Horticultural societies do much towards this, and we hope the inhabitants of Albany will spare no efforts to place their society in such a position as will allow its officers to offer such inducements to growers, as will make them willing to bring their products together in honorable rivalry.

There is doubtless many who would like to have the pleasure of a walk in their own green-house, but fear the expense. It is thought terrible. So it is, if carried out as some do; but that need not be the case. A small house rightly constructed, will impart as much pleasure to its owner, and grow plants as well, and often better, than where the cost is thousands of dollars.

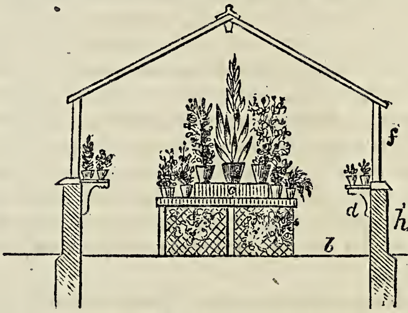
The great point of all good glass structures is *light*, *ventilation*, and efficient means for supplying *artificial heat* for the plants for which it is intended. For the amateur, it is generally a miscellaneous collection of plants that will thrive in the temperature of a common green-house, or, in other words, a house where the winter artificial heat need not be over 40 or 45 degrees. This is by far the most useful structure; as persons of the most limited means may have one, with but little expense, if they will spend a little of their leisure time in attending to the wants and requirements of the plants.

The pleasure of a green-house is greatly enhanced, if, by stepping out of the dwelling, you also step into the warm, comfortable atmosphere of a green-house.

In the accompanying figures, it will be seen that the green-house is attached to the dwelling, having a sash door (*a*) placed in such a way as to admit a view from the parlor the whole length of the house. The dimensions are as follows:—Height 12 feet, width and depth 15 by 20; (*b*) walk, extending all round the house, 2½ feet wide; (*c*) stage in the center, for growing the taller plants, and (*d*) shelf for growing the smaller stock of plants, and a few conspicuous flowering ones among them.



The sides of the house are 8 feet high, consisting of a row of sashes (*f*,) 3½ feet high, fitting into the top and bottom plate, and a wall (*h*,) on which the whole stands. The rafters are placed about 4 feet apart, with two sashes on each, the top ones sliding over the bottom, to give air; working by means of pully, cord and weight.



The upright sash should also be used for this purpose, by fixing hinges on the top, with a racket on the bottom, the sashes moving outwards. There is a door (*i*) leading into the garden.

The next point to be considered is the heating, which, in this plan, is by the circulation of air, or what in England is styled "*Polmaise.*" In the cellar, under the parlor, next the cellar wall, is fixed an *air tight stove* with an *air chamber*, shown by the dotted lines on (*b*), built over it. A drain is led into this from the farthest end of the house at 2, with an opening into it at 3. Another drain is brought from 4 into the *air chamber*, to supply fresh air, with a door to shut it off when the cold is too intense to admit of it. There is an opening at 1, where the heated air escapes into the house; as it cools, it falls, passes in at 2, to the air chamber, is warmed over again, and thus a perpetual circulation is kept up. The house can be heated just as readily by flue or hot water passing around under the front shelf, but should be sufficiently low, so as not to interfere with the walks.

The cost of such a house, plain and strong, ought not to be more than 300 dollars; and fixed with ornaments, to suit the style of dwelling house, certainly not over $350 to $400. Edgar Sanders, *gr. to J. F. Rathbone, Washington st., Albany.*

Pomological Meetings.

Informal meetings for the discussion of subjects connected with fruit culture, were held for two evenings, during the recent State Fair at Saratoga Springs, and much interesting information was communicated.

First Evening.—*Cracking of the Pear.*—The subject of the cracking of the pear was introduced, and a number of gentlemen present were unanimous in stating that in New-England and in other places where the cracking had generally destroyed the White Doyenne, (or Virgalieu,) this variety had entirely escaped when propagated on the *quince.* The only exception was mentioned by A. Saul of Newburgh, where it is usually quite fair, but during the present season of extraordinary rains, it had cracked badly, and alike on both quince and pear. E. W. Leavenworth of Syracuse, said that of the thousands of bearing trees of that place, none had ever cracked except those brought from Long-Island; hence the inference that the disease was mainly from a constitutional condition of the stock or variety—most others, however, inclined to the opinion that this disaster results from a peculiarity of the season. The present year it had been more prevalent than usual; A. Saul stated that all his *early* pears were fine, and the late ones much injured; the first part of the season being favorable, and the latter excessively wet. Cases were mentioned, however, where the influence of soil had contributed to the same result, in trees dissimilarly affected in the same immediate neighborhood, subjected alike to every peculiarity of the season.

The opinion was expressed by a number present, that the cracking of fruit results from the same cause that produces leaf blight on the tree; and several instances were mentioned where the cracking had commenced first on the lower parts of the tree, where the leaves had been correspondingly attacked.

Select lists.—It was proposed that such gentlemen present as were familiar with the best varieties of the pear, should furnish a list of the three best, or such as they would plant the most largely for their own use. The *Seckel, Bartlett* and *Virgalieu,* (or Doyenne,) were selected by P. Barry of Rochester, E. W. Leavenworth of Syracuse, and T. C. Maxwell, of Geneva. J. J. Thomas of Macedon, named *Flemish Beauty, Seckel* and *Virgalieu;* J. Battey of Clinton county, preferred *Louise Bonne of Jersey, Flemish Beauty* and *Winkfield.* Dr. Wendell of Albany, and A. Saul of Newburgh, would choose *Seckel* and *Bartlett,* and would add the Virgalieu or (Doyenne,) provided it should still continue to do as well as in years past. It thus appears, that of the seven votes given, *six* were for the Seckel, *six* for the Virgalieu, *five* for the Bartlett, *two* for the Flemish Beauty and *one* for the Winkfield.

The smallness of size having been stated as an objection to the Seckel, one gentleman remarked that a tree on his grounds, which had been uncultivated, had borne such small fruit as is usually seen; the present year it had been well tilled, (without much manure,) with an increase in the size of the crop, and a three-fold increase in the size of the fruit—many of the specimens being quite as large as an ordinary Virgalieu. The opinion was given by several that the Seckel had not been allowed a fair chance in ordinary management, and that with high culture, its fruit would be much heavier and finer.

Fire Blight.—E. W. Leavenworth had found the fast growing sorts of the pear, and those stimulated with high manuring, much more liable to blight than those with short, compact wood; and that the disaster usually occurred during the prevalence of the hottest weather; which was in accordance with the observations of several others.

Profits of Fruit Culture.—This subject being introduced, some statements were made of the large profits derived from the culture of the *Lady Apple.* W. H. Denning of Dutchess county had annually sold forty dollars worth of fruit from a single tree, the price varying from eight to twelve dollars per bushel. The soil was gravelly. On soils of a different character the crop had been quite unsuccessful. One gentleman had picked ten barrels from his trees, and found only two barrels fair, the least blemish entirely spoiling the sale of a fancy fruit. Another gentleman stated that from an orchard in Orange county, out of five barrels he had not obtained a single hatful of good specimens. Dr. Ward said that in New-Jersey it succeeded well on gravelly loam, which was generally admitted to be its best soil. Information was given of the large profits of an orchard at Darley, near Philadelphia, containing 200 trees, and occupying four acres of land. The average annual nett profit was 800 dollars, or 200 dollars per acre. The soil of the orchard is constantly cultivated in crops, with the application of bone dust, and it is regarded as one of the neatest and best specimens of orchard culture in the state.

The high price of this apple depends entirely on the demand for it in cities for fashionable evening parties, which is far greater than the supply. American grown Lady Apples also command a very high price for the same object in London. The opinion was however expressed, that as it is not a fruit of the highest character and value, and the fashion may not always continue in its favor, it would be unsafe to plant it largely, or exclusively for market.

Profits of Pear Culture.—It was stated by a gentleman present that Martin Smith of Tarrytown, had sold 600 dollars worth of Virgalieu pears, (at $4 per bushel,) from less than an acre, besides nearly $100 worth of Bartletts. Another instance was mentioned where an old tree, growing in Western New-York, had annually yielded from 20 to 30 dollars worth of pears, at two and a half dollars per bushel. An acre would admit one hundred such trees, and would yield annually from two to three thousand dollars in fruit. The tree mentioned received no cultivation. Dr. Ward had obtained from forty trees of the Bartlett, which had been planted only seven years, and which had commenced bearing three years afterwards, an average of half a bushel per tree the present season, and had sold them from four to six dollars per bushel. T. C. Maxwell had trees of the Flemish Beauty seven years planted, and two years old when set out, that had borne two bushels each last year, and over one bushel this.

Ripening and Marketing Fruit.—All present who had tried the Flemish Beauty, had found it, (in common with many other sorts,) greatly improved in flavor by picking a few days before maturity, and ripening within doors. This treatment had also been found necessary by some on account of the liability of this pear to be blown off by the wind. P. Barry said that the treatment must be adapted to the peculiarities of the different sorts—that some pears of a soft melting character, such for instance as the Flemish Beauty and Belle Lucrative, should be ripened in a cool room, or cool dry cellar, to prevent the process from being too rapid, and to avoid speedy decay. On the other hand, those of a harder or more gritty nature, needed a much warmer temperature. The observations of others corroborated this statement. A dark drawer had been found the best place for a pear to complete its ripening and to acquire its finest color. Whatever the temperature might be, that is best adapted to the maturing process, preserving a *uniformity*, and avoiding changes, was regarded of great importance; and also that too dry atmosphere was unfavorable to the ripening of winter pears, especially, which had to remain exposed to it a long time, and which, if they once became too dry, never could be made to soften by maturity.

Winter Pears.—Gentlemen present being called upon to name the best winter pears, P. Barry expressed his preference for the *Lawrence*, *Winter Nelis*, and *Easter Beurre*. The Lawrence and Winter Nelis would ripen well in boxes in cellars, and the Easter Beurre was unquestionably the best very late keeper, but should be always grown upon the quince. J. Battey of Clinton co., named two, the *Winkfield* and *Winter Nelis*; J. J. Thomas selected the *Winkfield*, *Lawrence*, *Winter Nelis* and *Easter Beurre*; Dr. Wendell preferred the *Winkfield*, *Winter Nelis*, and *Easter Beurre on quince*. For exclusively raising on quince, P. Barry would prefer the *Winkfield*, *Glout Morceau*, and *Easter Beurre*. A few gentlemen who were acquainted with the *Doyenne gris d' Hiver*, regarded it as giving the highest promise of all the new winter sorts.

Vineyards in California.—In Los Angelos county are 105 vineyards, containing 450,000 vines, each of which produces, on an average, five pounds of fruit. The grapes are of the most delicious quality.

Fall and Spring Transplanting.

A CORRESPONDENT objects to the practice of those "who still continue in the old delusion that fall is the best time for transplanting trees"—stating that "some shrubs, and almost all plants, removed in the fall, when the *sap*, the great supporter of their life, has gone down into their roots, vegetation ceases in them, and they consigned to a new cold soil, perhaps not a single fibre of the roots taking hold until spring, if indeed, detached almost if not entirely from all nourishment, any life remains, are destroyed by fall transportation. Fruit trees, being more hardy, bear up, but they are forever stricken," &c. In the spring, "if the dirt is wet, and packed solid round the roots, before they are dug, touching or injuring as few of the fibres and roots as possible, and carefully setting in their new bed, vegetation goes straight on," &c.

We give this quotation for the sake of pointing out a very common error, namely, that the sap goes down into the roots to winter. Instead of this the sap pervades usually all parts of a tree alike, and while covered with leaves these keep up a constant drain or escape. When the leaves fall, although vegetation has ceased, the roots still absorb a small quantity, and as there is no escape through the leaves, the vessels of the tree gradually become filled or distended so that on the approach of warm weather, stimulating activity, the least wound is followed by a flow of the sap. As soon as the new leaves expand, as a general rule, this flow from incisions, ceases, in consequence of the drain afforded in another direction.

Now it usually happens, that removing the tree in spring cuts off in a measure the supply from the roots at the very moment it is most wanted,—an evil quite as great as that resulting from any diminished supply in consequence of fall transplanting. Our correspondent speaks of the evil of "a new, cold soil"—are we to understand from this that the plant has warmed the bed in which it stood, and that it is chilled, like a human being, by removal to a fresh bed? Is not the "new soil" as relatively cold in spring as in autumn? He speaks of life being "destroyed by transportation"—this must refer to long distances; yet trees may be sent thousands of miles, if *well packed*, with nearly or quite the safety attending their removal to the next farm. Ample experience has proved this to be true. Why are we not allowed to take the same pains in saving the roots and carrying the earth upon them, for autumn as well as for spring transplanting?

But throwing theory aside,—we have in the course of our practice set out many ten thousands of trees of various sizes, both in autumn and in spring, and we are satisfied that more, by at least twenty-fold, depends on a good soil, careful work, and especially on the subsequent culture, than on the season of the year; nevertheless, if it were not for the liability to be thrown out or raised by frost, and the danger to half tender sorts from the cold of winter, we think the advantages would decidedly preponderate in favor of autumn, more especially because it is not accompanied with the check we have already spoken of, at the very moment the trees should commence to grow vigorously. We have never found hardy trees to succeed better, if as well, *other things being the same*, as when carefully dug up in autumn and well laid in till spring, when they were set out, without the above mentioned check.

Shrubs and small plants, if inclining to be tender, are always made more tender the first winter by transplanting; hence they should be either protected, or the work done in spring. Hardy, early starting perennials, as peonias, pie-plant, &c., should always be set in the fall; while tulips and many other bulbs require setting a month or two earlier. The practice must be modified by circumstances, climate, and the habits of the various plants.

Hardy Ever Green Trees.

Deodar or Indian Cedar—*Abies Deodara of Lindley.* A native of the western Himalayas, where it grows to the height of 150 feet, often with a clear trunk eight or ten feet in diameter. This noble cedar cannot be too extensively planted, as its peculiar graceful habit, when in a young state, renders it an attractive feature from the first. It has not inaptly been termed the *Evergreen Larch*, from its pleasing light green foliage.

Cedar of Lebanon—*Abies Cedrus.* A native of Mount Taurus and Lebanon, but now much scarcer in its native habitat than in places in Europe, where it has become a general favorite. Its majestic wide, spreading branches, when seen in old trees, make it one of the very best for planting for the beautiful in landscape scenery, its heavy sombre foliage contrasting finely with the lighter foliaged trees. It has been ranked by many as too tender to stand the severe winters of this country, the cause of which in most instances, is probably owing to its being planted in cold and damp situations; whereas this and the preceding, to show their true character, should be planted in a dry soil; if considerably elevated above level of the sea, so much the better. The illustration given above, was taken from one in New-York, growing upon the grounds of Thomas Ash, Trent.

Crossing of the Grape.

Will the pollen of grape vines mix if two vines of Catawba and Isabella are run on the same trellis? I have a row of each, fifteen feet apart, and not succeeding with them on stakes, I think of placing them on a series of trellis running across, if there be no objection to their running together. W. H. Miller. *Memphis, Tenn., Sept.* 2, 1853.

No evil nor visible result will occur from the two sorts of grape occupying the same trellis. It is not common for one variety to impregnate another, even if in close proximity, unless the one impregnated first has its own anthers removed artificially. It however sometimes occurs. But even when it does occur, the pulp or fruit is not at all changed or affected, but only the *seed*, whose hybid nature is developed only when new plants are produced and bear fruit.

Strawberries.

In reply to K. Norris' question, in your October number, asking the name of some productive large fruited strawberry "that will hull in picking," I name the Hudson as precisely what he desires. There are five or six other varieties which have the same properties, but I do not recall their names positively. I think, however, that the Moyamensing Pine, Triumph, and Cornucopia, are among the number. Wm. R. Prince. *Flushing, Oct.* 3, 1853.

The Grazier.

Scratches in Horses.

This well known disease, a sort of cutaneous affection ending in cracks and sores, between the hinder pastern joints and hoofs, is sometimes quite troublesome, and often difficult to cure. Several remedies are in common use, among which are, first, shearing off closely the hair, then washing well in soap suds, and then in salt water or beef brine—washing with soap suds and then rubbing off the surf or scabs with a corn cob, and applying a thin coating of hog's lard. Another way is to wash with saltpetre after the soap suds washing has become dry, and after the saltpetre has become dry to apply a slight coat of turpentine with a feather or quill. All these remedies are quite similar in character, and are all useful, but we have never found anything equal to a solution of *chloride of lime*, applied after the first washing, and after the removal of the scabs where necessary. We have never seen this remedy recommended, but it is certainly eminently cleansing in its operation.

Cough in Horses.

We once had a horse that had caught a bad cold, and coughed so severely that he could be heard half a mile. All sorts of remedies were proposed—enough we should think, to kill any good horse outright. These remedies were all rejected, (although some might have proved useful,) and the following course pursued. The horse was in the first place very carefully and moderately used, so as never to produce perspiration—he was carefully blanketed when the weather was cold, [it was about mid-autumn,] or when he was in the least degree heated—he was kept constantly on green and succulent food, clover, roots, &c., and was supplied with a plenty of the best water at all times. In a few weeks he was perfectly well. It is an old saying that more depends on the *nurse* than on the *physician*, which was verified in this instance.

Feeding Calves.

In the August number of the Cultivator, under the head of "*notes for the month*," I observe an account of two extraordinary calves, reared by Mr. Aaron Wilson of Ovid, N. Y., in which, in reference to the largest one, it is stated, "*this steer never ran with the cow, but was reared "by hand" in the usual method.*"—Now will Mr. Wilson, or some other of your numerous contributors give an account of the usual method of raising calves by hand, here spoken of? The practice of managing calves in the south, is so different from that here alluded to, that I am very desirous of seeing an account of Mr. Wilson's method, and do not doubt that by furnishing it through the columns of the Cultivator, he will confer a great favor on many of your subscribers, but particularly on your ob't servant, S. F. P. *Caldwell County, N. C., August* 17, 1853.

We do not know what particular modification of hand-rearing was adopted in the instance referred to. One of the best modes of management is the following:—Give the calf the milk fresh from the cow, at least two or three weeks, by allowing it to suck at regular and stated times. As soon as a change is made, it is very important that this change should be *gradual*, as sudden transitions are always attended with more or less hazard or loss, or a check in growth not quickly got over. The first thing is to learn the young calf to drink new milk, which is done by drawing its mouth into the vessel while sucking the finger. As soon as it will drink freely, let a portion of warmed *skim-milk* be added, daily increasing it until, in two or three weeks, it becomes wholly cold skim-milk. The milk itself, may, after a while, be gradually discontinued, by substituting at first, small portions of flour porridge, made like painter's paste, or by mixing a pint of flour with water, so as to be as thick as cream, and then adding small portions of boiling water, constantly stirring, till a gallon or more has been added, applying heat afterwards. This cooking makes the flour more agreeable, and increases its nutritive effects. At first it will need mixing largely with milk—afterwards it may be increased and thickened. Fine "middlings" may be then substituted for flour—bean meal has also been found useful when mixed with other food. Eating hay may be taught early, by placing a wisp for the calf to suck, portions of which will become detached and eaten. When pasture appears calves soon learn to feed on it—but the artificial food already described, must be continued through the summer in connection with pasture. When several calves are to be fed together, this treatment is not troublesome, and will be found economical.

Black Leg in Calves.

The remedy (?) of Mr. E. Burnham, for this disease, given in the Country Gentleman of the 4th of August, and taken from the Ohio Cultivator, namely—"as much salt as the animals will eat once in every two days," may possibly be a preventive, and I doubt it; but certainly it is not a remedy.

This disease is common, on *certain lands only*, nay it is confined often to certain fields on the same farm in the West of Ireland, where stock raising is carried on very extensively, and the only remedy for this fatal disease that has ever been discovered, is the following, and the only one I ever heard of that was practiced with success.

"So soon as the first symptom of the disease makes its appearance, make an incision in the *under* part of the tail of the animal, near the root, where the skin is without hair, separate the skin on either side of the incision from the bone, and into that purse so formed, put a small clove or piece of garlic, so secured as not to drop out, and leave it there, and you will find the cure certainly effected without further trouble, if the disease has not gone too far before observed, and the remedy applied."

The great power of this remedy may be partially estimated, if the operator will observe the quickness with which the system is affected, for the operator can no sooner go from the tail to the head of the animal, than he will find the breath strongly impregnated with the peculiar smell of the garlic. F. J. F. *Newtown, Ky., August*, 1853.

Suffolk Boar Prince.

In the month of January, 1852, John C. Jackson, of N. Y. City, imported from the yard of His Royal Highness Prince Albert, eight Suffolk swine. These pigs, shortly after their arrival, were transferred to Col. SHERWOOD, of Auburn. I purchased Prince, one of the eight pigs of Col. S., and have just re-sold him, to Mr. CLARK of Mentz, for the sum of one hundred dollars. Prince has proved himself a good sire, and has increased the value of our stock of hogs in this neighborhood fully $1000, in the year past. J. R. PAGE. *Sennett, N. Y.*

About Salting Stock and other Things.

MESSRS. EDITORS—The communication which I sent you some months ago, regarding salting hay in an *evenly* manner, has led to a result, which will doubtless contribute much to the health and the comfort of the cattle on a thousand hills or farms, and to the consequent comfort and benefit of their owners. It has brought out information as to the best method of salting stock, which must be valuable to many of your readers. For one, I acknowledge myself under obligation, both to your West Pawlet subscriber, and also to Mr. J. W. COLBURN of Springfield, Vt. I have been in the habit of depending entirely on my hay, when evenly and properly salted, for a sufficient supply of that article for all my stock during the period of foddering. Now I will adopt the more excellent way pointed out by the contributors to your paper, whom I have named above, and have salt always accessible to them in a trough. This trough, I will endeavor to have under cover, or defended in some way from rain and snow. This is a provision for having the salt always in a proper condition which is not mentioned, if I recollect aright, by either of your contributors referred to. Another matter *essential* to be attended to by all your readers, or others who propose to have salt always accessible to their stock, is this—the animals should all be accustomed gradually to the use of it. If sheep, especially after long abstinence from salt, were allowed free access to it, they would partake of it in such excessive quantities as to sicken and destroy several of them. Another thing which should be done in connection with this mode of salting stock, might be of considerable advantage, especially when corn or any other grain is fed to any of the animals. At such times especially, and probably at all times when the food is mainly dry, a quantity of ashes or a small portion of saleratus or sal-soda, crushed and powdered, may be mixed with the salt. This will tend to prevent that heart-burn and sourness of stomach, which oat meal and corn meal are apt to produce in the stomachs of human animals, and which they probably produce occasionally in those of other animals.

Now if all the suggestions which have now and formerly been made on this subject be reduced to practice by all your subscribers, during this and coming winters, we are persuaded that both the health and the comfort of all their animals will be much increased. To allow creatures access to salt whenever they have the instinctive craving for it, seems certainly the most natural and proper way, and the way most likely to promote health and prevent disease. In no other way can an animal have, so certainly, just what it wants, and what it needs, of this salutary condiment as in the way which your correspondents named have recommended through the columns of the Cultivator and Country Gentleman. Let us all adopt this method then, till we hear of a better, which will not be very soon, I guess.

There is one fact, which has recently come to my knowledge in connection with this subject, which may be given to the farming public with some prospect of benefit; as many may use it so as to save hay when it is scarce. A neighbor of mine had some wheat which he was obliged to get in, soon after being cut, and while the straw was rather green, to prevent injury from a threatening rain-storm. In order to prevent the mow from heating, moulding or otherwise taking harm, he sprinkled on the several loads salt in very liberal quantities. After this mow was threshed, and the straw stack made accessible to the stock on the farm, it was noticed that the animals were almost constantly picking at it, and that it disappeared quite rapidly. The straw was also eaten up cleaner than usual. This was all owing, doubtless, as it was ascribed, to the salt having made the straw more palatable. At all events, the fact furnishes a hint worth dollars—worth more than the subscription price of either or both of your papers—to many, who may have occasion to try it, and find as our neighbor did, that "never was straw eat up so slick."

OBSERVER.

TO PREVENT A COW FAILING IN HER MILK.—Wash the cow's udder and teats with pure cold water before milking, and then milk her morning and evening as dry as possible; negligence in this latter precaution is one of the causes of cows failing in their milk. The cow should if possible, be always milked by the same person, and while the process is going on a small quantity of hay should be placed before the animal. This furnishes employment for the jaws, and draws her attention from what is going on, and the milk is in consequence yielded freely.

Mr. Thorne's Importation of Stock.

Among the many heavy importations of domestic animals the present season, those of Mr. Jonathan Thorne, of Washington Hollow, Dutchess county, N. Y., will probably rank the highest in character, as well as cost; and exceed, indeed, in these respects, any former importation by a single individual. Having concluded to stock his farm at Thorndale, Mr. T. determined upon placing upon it the best animals which could be procured; and to enable him to accomplish this, he engaged the services of Mr. F. M. Rotch, of Morris—one of the best judges in the country, and whose previous tours in Europe had made him familiar with the best herds and flocks of Great Britain—to make his selections and purchases; and as he was not limited as to price, Mr. R. has been enabled to procure a select herd of Short-Horns, which, for quality in an equal number, it would be difficult to find in the hands of any one person, even in England, while his flock of South Downs will be unsurpassed in numbers and excellence, by any other in the country.

We congratulate the farmers of this state and of the union, upon these important acquisitions, as also upon the extensive and very valuable importations of Messrs. Morris and Becar and others: for, though the mass of them may not, from the high figures at which these select animals are now held, feel an immediate and direct influence upon their interests, the blood will ere long be scattered abroad, and its beneficial effect be exhibited in the improvement which will be certain to inure to the herds and flocks of the whole country. It is to such sources—to the importations of the last thirty or forty years—that we are indebted for the great improvement which has taken place in our domestic animals; and we consider it a source of gratulation that we have so many gentlemen among us, possessing the means as well as the requisite pride and public spirit manifested by these numerous and heavy outlays, to introduce from abroad all those animals necessary for the continued advance in improvement of our farm stock.

We have noticed at various times, as we have seen them alluded to in our English papers, the purchases made by Mr. Rotch; but we are greatly obliged to Mr. Thorne for the following letter, giving a more particular and authentic account of the principal purchases made on his account:

Respected Friend—I now have on my farm, some choice Short-Horns and South Down sheep of my own importation. To give thee some idea of the stock I am about importing, I take the liberty of adding some particulars relating to it, and some extracts from letters I have received from Francis M. Rotch of Morris, Otsego co., who, as thee may know, is now in England, making selections of stock for me.

In addition to the South Down buck, (112) secured at Jonas Webb's Letting, 11th July, at 130 guineas, and the two pens of prize yearling South Down ewes, shown before the Royal Agricultural Society of England, by Mr. Lugar, Mr. Rotch selected from Mr. Webb's flock, fifteen yearling ewes and five older ones (the latter as an especial favor.) He has subsequently added the first prize pen of yearling South Down ewes, shown at the York (England) Agricultural Fair, by Lord Walsingham. Mr. Rotch remarks of them—"I was really tempted to take them. They are a beautiful lot."

In connection with the ewes purchased of Mr. Lugar, Mr. Rotch says—"It is to be remarked that Mr. L. is the only breeder, with one exception, who has succeeded in winning both the first and second prizes, with yearling South Down ewes at the Royal Agricultural Society's Fairs. A breeder who can win with ten of his ewes, ought certainly to stand higher than the one who wins with only five. Mr. L. was my competitor at Mr. Webb's, for the buck, (112)."

Of Short-Horns, Mr. Rotch writes—"The Bates' bull, Grand Duke, (10,284) is a superb animal, and to my thinking the best in England; his handling can not be surpassed. He is a true Dutchess bull, with all their character and quality." Subsequently he writes—"I have purchased the Bates' bull, Grand Duke, decidedly the best bull in the world! at the long price of 1,000 guineas He looks every inch a Bates, and is grand in size and appearance, with a majestic carriage." Grand Duke was purchased of S. E. Bolden.

Mr. Rotch also purchassed of Mr. Bolden, at 100 guineas, "*Peri*," a roan yearling heifer by Grand Duke—dam, Pink, by 2d Duke of York (5959)—grand dam, Marygold, by Raspberry, (4875) &c. "You will see she has two crosses of the Duchess blood; then she goes to Booth's Raspberry, he being the sire of his famous cow Faith, mother of Hope, and she of Charity, his prize cow, thus going back to his best blood."

From Mr. Tanqueray he purchased "*Aurora*," a two-year old heifer, at 150 guineas. In speaking of her before making the purchase, he says—"I think Mr. Tanqueray's heifer, Aurora, by 3d Duke of York, one of the most desirable animals; she looks very like a Duchess."

From Mr. Townely he has secured two heifers, "*Frederica*," his choicest, two years old, at 300 guineas; color red—sire, Upstart; dam, Feathers, by Duke of Cornwall, &c. She is far advanced in gestation, and was only shown at the York fair this season, where she was a winner. "*Ltalah Rookh*," his choicest yearling, at 400 guineas; color red—sire, The Squire; dam by Prince Earnest, &c. This heifer was winner of the first prize at both the York (England) and the Irish shows, the only two at which she was shown this year. Mr. Rotch says—"Her pedigree is full of winners, and she is undoubtedly the most beautiful creature in England." In speaking of prices he adds—"Mr. Townely frankly told me I had asked for their best animals; that they did not wish to sell, and nothing but an enormous price would tempt them."

At the late Earl Ducie's sale, thee is aware of his purchase of Duchess 59, roan, 5 years old, dam Duchess

56, at	350 guineas.
Duchess 64, red, 4 years old, dam Duchess 55, at	600 "
Duchess 68, red, 11 mos. calf, dam Duchess 64, at	300 "

In speaking of this sale, Mr. Rotch remarks—"There was a large gathering of about three thousand persons. The average price of the animals sold, was double that at Bates' sale! I think I could have taken three hundred guineas for my bargain before I left the ground! Mr. Bolden was beseiged by several bidders, to send cows to Grand Duke, but put the price up to one hundred guineas a cow—on your account, of course!"

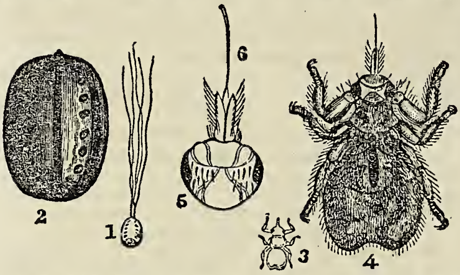
Mr. Rotch was disappointed in not getting Duchess 66, (her dam Duchess 55,) which Morris & Becar were fortunate in securing at 700 guineas. Had Mr. R. secured this Duchess, it would have given me all the Duchess cows Earl Ducie left, that have bred of late years.

The buck (112) and a part of the ewes, have come to hand, and fully answer my most sanguine expectations. They are doing finely. The balance of the stock I do not expect until about the first November. Very respectfully, Jonathan Thorne. *Washington Hollow, Dutchess co., N. Y.*, 9 *mo.* 28, 1853.

The Sheep-Tick.

The following short, comprehensive account of the *Sheep-tick*, with magnified figures of its parts, from Morton's Cyclopedia of Agriculture, will doubtless be interesting to sheep owners, and in certain cases may assist in their destruction when abundant:

Melophagus ovinus, (the *Sheep-tick* or *Louse*), lives among the wool, and must be very annoying to lambs. They are more or less abundant from March to October, when oval-shining bodies, like the pips of small apples, and similar in colour, may be found attached by the pointed end to the wool (Fig. 1—2, the same magnified); these are not the eggs but the pupæ, which are laid by the female, and are at first soft and white. From these issue the ticks ((3), (4, the same magnified), which are horny, bristly, and rusty-ochre; the head is orbicular, with two dark eyes (5), and a rostrum in front, enclosing three fine curved tubes (6) for piercing the skin and sucking the blood; the body is large, leathery, purse-shaped and whitish when alive, notched at the apex; the six legs are stout, very bristly, and the feet are furnished with strong double claws. A wash of arsenic, soft soap, and purified potash; a decoction of tobacco; train oil, with spirits of turpentine; or mercurial ointment, will destroy the ticks.



Fattening Animals.

This is a subject not generally understood by the great mass of farmers, throughout its various bearings. All know that they can fatten a hog or cow by feeding grain or vegetables enough; but as to the best, cheapest, and most profitable mode, among many people, little is known. As at this time of the year more attention is paid to the fattening of animals, than at any other time, a few hints with regard to it, will not be wholly lost.

Animals intended for the butcher should be kept quiet. They should have no more exercise than is necessary for their health, as more than this, calls for a greater amount of food, while the process of fattening is delayed. Animals should be fed regularly with a proper amount of proper food. Should they not be fed at regular intervals, it will tend to make them uneasy and discontented, and they will not thrive. When they are fed with apples or pumpkins, it should be in their season, and not when they have lost their goodness by decay or frost. This rule may always be observed, that the least nutritious articles should be fed first, and the most nutritive afterwards. Of the root crops, for fattening properties, potatoes stand first, carrots next, and ruta-bagas, mangel-wurtzels and flat turneps follow on in their order. Of grain, wheat is first, Indian corn, peas and barley are the next. Probably more corn is used than any other grain, especially for swine; it seems to be peculiarly adapted for the fattening of pork. There is a great gain in having it ground and cooked or scalded. No grain should be fed without one or both of these being done, as animals are more quiet and contented, and therefore gain flesh much faster. I am confident that food is as much better for swine and cattle, for being cooked, as it is for man. When animals are first put up for fattening, care should be taken that grain of great nutritive properties should be fed with caution, as the appetite is generally great, and over-feeding them with such grain will hurt them. The best plan that I know of, is to mix lighter grains and have them all ground together. Corn-meal possesses great nutritive properties, and animals will fatten faster on it than almost any other grain; but it will not answer to feed them wholly on this for a great length of time. Animals, when full fed upon meal, sometimes become dyspeptic, a disease similar to that sometimes affecting our own species. Hence we see the propriety, and frequently the necessity, of having the corn ground, "cob and all." By this means the nutriment is diffused through a greater bulk, lays lighter in the stomach, and all is thoroughly digested. This consideration more particularly applies to cattle than to swine; for the reason that animals which do not ruminate, or chew the cud, are better adapted for taking their food in a concentrated form. But still I say "grind your corn and cob together, and cook it well, and you will be doubly repaid for all your trouble."

It is an excellent thing to give animals a variety of food, as health is promoted by it. I have found the following to be excellent: One part corn, one part barley, one part peas, all ground together and mixed with boiled potatoes, pumpkins or apples. It is well to have this mixture slightly fermented, or soured by dairy slop.—Swine appear to like it better, and the pork will be as good. The health of swine is also promoted by an occasional supply of soap-suds mixed with their regular food, but no brine in which there has been saltpetre, should ever be permitted to be given. Sweet whey also should be soured before it is given to swine. To sum it all up, let animals have but little exercise; feed them regularly, the lightest food first, the strongest last; grind and cook all grain; also cook vegetables and fruit; feed a variety of the grain and vegetable kinds, slightly fermented, &c. Lastly, animals should be kept warm in cold weather, and should have plenty of air in hot weather. Now, if these rules are followed, and these hints remembered and heeded, the object and aim of the writer will be accomplished.—*Dollar Newspaper.*

Feeding Cows.

The following experiments in feeding were made by Mr. Thompson, a German farmer, with two cows. The whole time occupied was three and a half months, and measures and weights were taken for five days' product, five days after a change of food. It will be seen that he used six different articles of food, with the following result:—

PRODUCT FOR FIVE DAYS.

Fed on,	*Milk.*	*Butter.*
Grass,	115 lbs.	3 lbs. 5 oz.
Barley,	107 lbs.	3 lbs. 2 oz.
Malt,	102 lbs.	3 lbs. 2 oz.
Barley and Malt,	106 lbs.	3 lbs. 2 oz.
Barley and Linseed,	106 lbs.	3 lbs. 2 oz
Beans,	108 lbs.	3 lbs. 7 oz.

The amount of each kind of food was equal in pounds. It will be seen that the grass produced the largest quantity of milk, but the beans surpassed in the amount of butter produced.—*Agriculter.*

◆

Apples for Milch Cows.—Five minutes ago a gentleman, who deals in facts and figures, as well as fine cattle, informed us that he had fed out last winter more than two hundred barrels of sweet apples to his milch cows, and that the increased quantity and richness in quality of the milk paid him better than any other use to which he could have applied them. He states that he is raising trees annually, for the purpose of raising apples for stock. Another important statement of his, is, that since he has fed apples to his cows, there has not been a case of milk fever among them.—*N. E. Farmer.*

New-York State Poultry Society.

The following is a copy of the Constitution adopted at the late meeting of poultry-raisers at Saratoga:—

ARTICLE I. This Society shall be known as the "NEW YORK STATE SOCIETY FOR THE IMPROVEMENT OF DOMESTIC POULTRY."

II. The officers of this Sciety shall consist of a President, two Vice-Presidents, a Corresponding Secretary, a Recording Secretary and Treasurer, and a Board of ten Managers, who, together, shall conduct the affairs of the Society.

III. This Society shall hold a public exhibition of Poultry annually, at such time and place as the Managers may designate, during which time the officers of the Society shall be chosen by ballot, and the reports of the Secretary, Treasurer and Managers be presented.

IV. Any person may become an annual member of this Society upon the payment of ONE DOLLAR, and any person paying TEN DOLLARS into the treasury of the Society at any time, shall be considered a member for life. Honorary members may be appointed at any time, at the pleasure of the Society. All members and their families shall have free admission to the Society's exhibitions.

V. Members of the Society only, shall be permitted to compete for premiums at any of its exhibitions.

VI. The receipts of the Society, after deducting the expenses, shall be wholly devoted to premiums.

VII. The Board of Managers shall have power to make such additional rules and regulations, not conflicting with the provisions of this Constitution, as to them may seem necessary, and shall give at least six months notice of such regulations previous to each exhibition of the Society, excepting the first.

VIII. This Constitution may be altered or amended at any regular meeting of the Society, by a vote of two-thirds of the members present.

The list of officers elected, was published in our last number.

Black Leg in Calves.

MESSRS. EDITORS—I noticed a remedy for the "black leg in calves," in the Country Gentleman of the 15th September, which, like many prescriptions for the human species, seems superlatively ridiculous; misleading the credulous and wonder-loving, without contributing to science or proving efficacious in the removal of disease.

We would like to inquire if the *upper* side of the tail would not answer? or whether the introduction of the clove or garlic into any other portion of the body, or even into the stomach would not do as well? Is the rapid traveling of the medicine from the tail headwards a sure indication of its happy remedial action? If so, we trust that if "F. J. F." should be attacked with mortification of the hand, he will not complain if his surgeon should cleave a toe and introduce a garlic, and leave him to the rapid remedial action of the same. What is *science* in the one case is so in the other.

We have no remedy to suggest, but enter our decided protest against quack prescriptions, and mysterious and wonder-working manipulations, whether designed to be carried out on man or beast. MEDICUS.

◆

COLIC IN SHEEP.—For this Randall prescribes "half an ounce of Epsom salts, a drachm of ginger, and sixty drops of essence of peppermint. The salts alone, however, will effect the cure, as will an equivalent dose of linseed oil, or even hog's lard."

Book-Farming.

MESSRS. EDITORS—I presume there are not many of your subscribers who have not one or more neighbors within a mile or two from them, who are in the habit of sneering, more or less openly, at book-farmers and book-farming. I wish all such silly or self-conceited persons were obliged to sit still patiently and hear read or repeated to them the substance of the remarks which W. S. King made upon this subject in his late Address before the N. H. Agricultural Society. The following contains the pith of what he offered on this subject: "What is called Book-Farming is simply the appropriation of the experience of other farmers, which they or others for them, have thought proper to print. If a farmer, known to you to be a good farmer and a truth-telling man, tells you that by a system of management differing somewhat from yours, he has nearly doubled his crops, you listen with widely-opened ears; you store in memory every particular of his proceeding, and you determine to pursue, another year, that plan that has so well answered the purposes of your neighbor. But if this very man, desirous of benefitting a whole community by his experience, and having too much business at home to go about repeating his success from man to man, by word of mouth, shall write out his experiment, and cause it to be printed in a book or periodical, that moment it becomes a part of book-farming, and ceases to have virtue in the eyes of many. There is a magic in types, it would seem, that converts what is wisdom when spoken into folly when printed. But the species of book-farming, that above all others calls into play the prejudices of working farmers, is the printed advice of men who work more with their brains than with their hands; of men, who observe the operations of others, and carry into practice, by the hands of hired help, what commends itself to their judgment by its fruits; of men who regard agriculture as a science."

Let the above find its way to the eyes or the ears of every sneerer at book-farming, and perhaps some of them may begin to suspect that they have not been *so very wise* as they have thought themselves.

How to Rear Pigs.

MR. EDITOR—I have a fine Suffolk sow, which lately had a litter of ten pigs; in the course of forty-eight hours after the pigs were born, she killed six of them, by over laying and smothering them. I was relating and lamenting the loss, in the presence of an Irish girl that lives in my family, and she immediately said, if they had been in her country, all would have been saved. I said, Mary, how do they manage pigs in your country? "Dear a me!" she replied, "we put them all in a box, so the mother can't hurt them." "Well, how do you feed them?" I inquired. "O bless my soul," said she, "we put them with the mother several times during the day, until they are week old, and then they can take care of themselves."

The thought occurred to me, that possibly some others besides myself, might be ignorant of the Irish science of rearing pigs, and if you think proper, you can publish the method for the benefit of the community, until we get something better from Congress, or the Colleges. S. D. WALBRIDGE. *North Bennington, August* 25, 1853.

"Visit to Mount Fordham."

In our notice of a "visit to Mount Fordham," published in the Country Gentleman of Sept. 15, we were unfortunate in an allusion to the South Down Ram, which Mr. Morris had just received from Mr. Webb of England. We said:

> "There are about forty beautiful Southdown sheep, the whole being obtained or bred from the flock of the celebrated Jonas Webb, of which about twenty are imported, and the residue raised from them. A Southdown ram of extraordinary excellence and superlative beauty, was obtained there the present season, before the annual letting, and was selected as the best one in the flock."

Had we, instead of saying that it was "the best one in the flock," said that it was the one which Mr. Morris selected as his choice of the flock, the right idea would have been conveyed.

This correction is important only in its bearings upon the merits of the two rams purchased of Mr. Webb by Mr. Morris of Westchester, and Mr. Thorne of Dutchess, as heretofore noticed in this journal. To set the matter right, it is proper to state that in the autumn of 1852, Mr. Morris visited Mr. Webb, and in company with Mr. W.'s son examined the flock, which embraced the yearlings which received the prizes at the show of the Royal Agricultural Society in 1852. Young Mr. Webb asked Mr. M. to select the prize animals. After a careful examination, he selected the one he considered the best, but one which did not receive any prize. For this ram, called by Mr. Webb, "Young York," Mr. Morris offered any price that Mr. W. might fix upon; but he would not consent to part with it until after he had used him one season. Thus the matter rested until the present season, when Mr. Thorne applied to Mr. Webb, and secured the ram No. 112, in Mr. W.'s catalogue, and which was the one that received the first prize as a yearling at the Royal Agricultural Society's exhibition in 1852, and which was, in the opinion of the English judges, the best one in the flock. In the meantime Mr. Morris effected the purchase of "Young York," the one he had selected in the autumn of 1852. Thus it will be seen that each gentleman secured the sheep he most desired, and with which, we venture to presume, both are abundantly satisfied.

Use of Guano at the South.

There seems to be no question as to the entire success of the application of guano to the old farms of Maryland and Virginia, and the demand for it has increased very rapidly for the last two or three years, so much so indeed that cargoes all are bespoken long before their arrival. In alluding to this subject, the American Farmer, Baltimore, says:

> The wonderful effects which all who have used it have experienced, (particularly on the worn out lands of Maryland and Virginia,) has caused this extraordinary demand the presents season—and many who have prepared their land with the expectation of obtaining guano to sow upon it, will prefer to forego the attempt to raise a crop, if they cannot obtain a supply. On the wheat crop it has been found to answer better than on any other, though it pays well on almost any crop, be it grain, grass or vegetables. We cannot go amiss in saying that, directly or indirectly, it has been the means of increasing the value of landed estate in many sections of Maryland and Virginia 100 per cent. and that the increase in the crop of wheat, wherever this fertilizer has been used, has been in the same ratio—it has been a real God-send to our old States, and has created a wonderful revolution in the hopes and prospects of the farmers of the poorer districts of the States alluded to. Lands which would not have produced six bushels to the acre, and could not have been sold for $5, by the use of 200 to 400 lbs. per acre, of this agent, are now made to yield crops equal in quantity to the lands which have been sold for $50 to $75 per acre! No wonder that these facts, the knowledge of which is brought home to the doors of farmers in every direction, by the experiments made under their own eyes, has caused so intense an excitement, predicated upon the apprehended deficiency in the supply.

Good Cultivation.

The Wisconsin Agricultural Transactions contain the following short account of a specimen of good farming in Brown county, in that State, which shows that the poor success which has attended some of the farming there, and especially that with the wheat crop, is owing to bad management, and is not to be attributed to the soil—for land that will give these results must possess great inherent fertility:

> Captain J. W. Cotton, until recently of the U. S. army, a few years ago resigned his commission and sword and the excitement of the camp, to pursue in quiet a life devoted to agriculture. His farm (Beauprey Place,) is situated on the high land one and a half miles from Green Bay, upon the east side of the river, and until Capt. Cotton undertook its culture, was truly an unpromising tract. In 1850, the first year of his efforts, with one coat of manure upon land that had been "worn out," of sandy soil, and a clayey-marl sub-soil, with deep plowing, and thoroughly pulverizing the surface, he raised from thirty-five to forty bushels of winter wheat to the acre, and remunerating crops of corn and oats. Upon one-fifth of an acre, with field culture, he raised 335 bushels of carrots, the largest of which, when trimmed, weighed six pounds each. The past summer, from a field of four and a half acres, that had been "run to death" by the French mode of tillage, by the plan of culture he had pursued the year previous, he raised and harvested 340 bushels of ears of corn, and about 1800 pumpkins. These results, compared with the make-shift culture that has prevailed with most of those who have pretended to cultivate the soil, serve to prove that Brown county may, when her forests have been removed, and the land brought under the genial influence of the sun, raise at least her own substantials of life, and not depend for her supply upon the fruit of the husbandman's labor elsewhere.

◆

The Richest Mine.—The manure applied to the soil of England amounts to three hundred millions of dollars; being more than the value of its whole foreign commerce, and yet the grateful soil yields back with interest all that is thus lavished upon it. And so it would be here, if we would only trust the soil with any portion of our capital. But this we rarely do. A farmer who has made any money spends it not in his business but in some other occupation. He buys more land when he ought to buy more manure, or he puts out his money in some joint stock company to convert sunshine into moonshine. Rely upon it, our richest mine is the barn-yard, and whatever temptation stock or shares may offer, the best investment, for a farmer is live stock and plow-shares.—*Extract.*

◆

Salt.—An annual dressing of salt in moderate quantities sown broadcast over the garden early in Spring, destroys the germs of insects; 10 bushels to the acre.

Notes for the Month.

Patent Office Report.—We are indebted to the Hon. Charles Mason, Commissioner of Patents, for the annual Report from the Patent Office for 1852–3, comprised in two volumes—the first, exhibiting the Mechanical, and the second, the Agricultural transactions of the Department.

Dutchess County Fair.—This Fair was held at Washington Hollow on the 4th and 5th of October, and is said to have been unusually fine, particularly in live stock, of which there was a large exhibition—among them the fine South Down Ram just received from Jonas Webb, by Mr. Thorne.

Orange County Agricultural Fair.—This Fair took place at Goshen, Sept. 28th and 29th. We learn from a correspondent that the exhibition fell short of previous ones. "The show of agricultural and horticultural products, and the display of articles of domestic manufacture, were almost an entire failure. The long tables in the tent, had scarcely an article upon them to attract attention. The Stock Department was better represented, and the show of fat cattle very good. The Horses, however, attracted the largest share of attention, and large numbers of superior animals were on the grounds. The high price which horses bear in the New-York market, has induced many farmers to breed them as a part of their business."

Our Ag. College.—At the recent Fair of the Monroe Co. Ag. Society, after an address by the Hon. John Delafield, the following resolution was unanimously adopted:

Resolved, That we have now heard with pleasure the statements in reference to the promotion of our farming interests, by the organization of the New-York State Agricultural College, and do heartily congratulate the farmers of the State on this important event: that we believe the farmers and citizens of the county of Monroe will as far as practicable aid and sustain this important object, as being intimately connected with the prosperity of our State and Nation.

Messrs. Allen & Co. have discontinued the publication of the *New-York Agricultor*, a weekly folio, and the *Farm and Garden*, monthly, and in place of these publications now issue a weekly quarto of 16 pages, under their old title of *American Agriculturist*, at $2 a year.

Distilleries Unprofitable for Farmers.—The Ohio Cultivator, in allusion to the common plea that distilleries afford a market for corn and keep up the price, states in substance that Ohio pork would command two or three dollars more per barrel in some of the eastern markets, if purchasers could be assured that none of it was *still fed*—and that, generally, the farmers of Ohio lose at least *one dollar* per barrel on all the pork sold, from this cause, amounting to at least *half a million of dollars* for the State. Also, that the value of *lands* would be greatly enhanced in some neighborhoods, if these nuisances could be removed; and that such is their blighting influence on the community around them, that intelligent persons avoid purchasing farms in their vicinity. It is likewise stated that there are many townships in Ohio where the lands are depreciated full 25 per cent from this cause.

Mutual Instruction.—"There is no branch of human knowledge," says Hon. Wm. C. Rives, in his late address at Saratoga, "in which so much is taught by EXAMPLE, as agriculture. The practice of the best farmers, it has been well said by the leading agricultural writer of England, Mr. Pusey, is the accumulated and varied science of ages. Acknowledging as I do with gratitude, and in the most unreserved terms the obligations of agriculture to professional science, I must yet say that farmers are in the main the best teachers of farmers, and that through the medium of agricultural societies and agricultural journals they have been organized into a great Lancasterian school, in which the system of mutual instruction has received its highest development and most useful application."

☞ Mr. J C. Tiffany, Esq., of Coxsackie, has, we understand, sold his Ayrshire bull, "Marion," to David Miller, Esq., of Carlisle, Pa.

Agricultural Paper.—After the monthly reading of the Cultivator, I can almost imagine having attended an Agricultural meeting, composed of some of the most intelligent farmers of the Union, the editor in the chair, your humble servant in some unnoticed corner, though none the less interested. Good agricultural reading makes farmers more proud of their calling, and happier in the discharge of its duties, and it incites them to the higher exertion of the mind. Yours, D. R. S. *Malone, N. Y., Sept.* 1853.

Water in Streets.—Some farmers, for economy, drive their cattle into the street for water, particularly in winter. While there, they usually drop much manure, and the amount thus wasted by a large herd in a single winter, would, in many instances, pay for a permanent supply of water in their yards, to say nothing of the saving of labor.

A Mammoth Pumpkin.—At the Warerooms of Emery & Co., there is a mammoth pumpkin, differing in its external appearance from the common variety and closely resembling a squash, which measures *six feet and nine* inches in circumference and weighs *one hundred and thirty-four pounds.* It was grown by M. Wanzer, of Greenbush.

Michigan State Fair.—The late Fair at Detroit was one of the best held in the State. The attendance of people was large, and the exhibition much better than last year. The receipts for tickets exceed $5,000, an increase of nearly one-half over last year's receipts

Good Farming.—Mr. S. Eldred gives, in the *Michigan Farmer*, an estimate of the products of his 200-acre farm the present year. He finds a balance of $2,700 in favor of the farm, as payment for labor, interest and profit.

Answers to Inquiries.

Pigs.—Inform me through the next number of your paper, what Essex and Sussex pigs of each sex will cost—whether they could be sent to Terre Haute, Ind., by express, or how I could get them there, and who would be a proper person whom I could address, to purchase and send them to me. W. S. T. *Washington, Ind., Sept.* 13, 1853.

The pigs could be sent to Terre Haute by express. The prices vary from $15 to $30 per pair. For persons to address, see advertisements in the Country Gentleman and the Cultivator.

Stowell's Evergreen Corn.—I wish to know through the Country Gentleman, at what time the Evergreen or Stowell corn should be plucked—or what should be the consistency of the corn when it is picked, and how it should be kept after it is tied—whether in a dry or damp place—laid down or hung up. K. Norris. *Sept.* 1853.

Having, in common with several of our friends, found this corn of little value, we would request some one who has been more successful, to answer the above inquiry.

Bakewell Cattle.—Can you or any of your subscribers tell me through the Cultivator, where I can get a full blooded Bakewell Bull, not exceeding two years old, and what will be the price of him? Charles T. Graves. *East Cleveland, Sept.* 24, 1853.

We know of no pure Bakewell or Long-horned cattle, in this country.

Review of the Wool Market for September.

Prices have remained stationary during this month, principally by reason of the uncertainty which has hung over the question of war or peace in Europe, and from the operation of a rather stringent money market. There has, however, sprung up quite an active demand near the close of the month, and advanced prices are obtained as compared with the lowest point reached in August, and the early part of this month. The reaction has taken place, and prices must now rule high until the next clip. 55a65c. is now a fair quotation for good to prime full blood Merino, and 65 to 85c. for Saxon. Common and grades range from 40 to 55c.

Manufacturers have not yet become fully aware of the great falling off in the wool growing business of the Union. In this State alone the decrease of sheep since 1845 has been about four millions, and in all the New-England States the decrease has been equally marked. There has been an increase West, but not in any proportion to the decrease East. It is true that by the use of old woolen rags, which have become a very important staple of commerce, and the increased adulteration of woolen cloths by substituting cotton and flax-cotton, the manufacturers have not been so observant as they might otherwise have been. The fact exists, nevertheless, and they will become aware of it in due time. Wool must rule high.—*Wool Grower*

New-York Horse Market.

The *New-York Tribune*, in addition to its extensive and accurate weekly reports of the Cattle Market, now furnishes a weekly review of the New-York Horse Market, prepared with great labor by Solon Robinson. In his report for last week, the writer says:

We have never found the state of the Horse Market more dull than to-day. The number in the street for sale foots up 708, which is only 6 difference from last report. This is evidently too many for the demand, and holders will some of them have to hold on at a loss or sell for the same. The number sold during the last week, 317, is 67 more than for the week reported last, but nothing like what it was in the Spring, or what was generally expected this Fall. It is thought by some that a good many purchasers are holding back for the great Horse Show at Springfield next week, when, it is supposed that a great many fine Horses will be exhibited, offered for sale, perhaps low. Our opinion is, that under the influence of a flush Money market last Spring, and a large demand for Horses for City Railroad purposes, the prices were inflated a little too high, and now must come down to a fair standard before the market recovers its full activity.

Albany Market, October 15, 1853.

During the week, and up to the receipt of the steamer's news, the market ruled very steady for Flour, with a fair demand for the better kinds; but after the receipt of the news, prices of the low and middling grades were put up 12½c., and sales to a fair extent have been made at the advanced prices. Business, however, has been materially checked by the advance in river freights. Wheat ruled steady up to yesterday, when the market became unsettled. Holders asked higher rates, and have not yet been met by buyers. In the early part of the week Corn became depressed, but after the foreign news a better feeling prevailed and better prices were realized. Barley has ruled firm, and the daily receipts have been freely taken at full prices. Oats have been in active demand at rather improving rates.

FLOUR AND MEAL.—The improvement noticed yesterday in the low and medium grades of Western and State *Flour* has been maintained but with only a moderate business doing. There is but little doing for the east, which is attributable to the absence of vessels. The home and river demand is quite moderate as is usual on the closing day of the week. The better grades are held firmly. The sales of the morning aggregate 1,000 bls. We quote:—

Ordinary to straight State	$6 75a6 87
Mixed Indiana and Michigan	6 81a7 00
Straight Indiana and Michigan	7 00a7 12
Favorite State	7 00a7 12
Common to good Ohio	6 87a7 00
Fancy Indiana and Michigan	6 88a7 00
Fancy Ohio	7 00a7 12
Fancy Genesee	7 00a7 12
Extra Indiana and Michigan	7 00a7 25
Extra Ohio	7 12a7 25
Extra Genesee	7 12a7 37

Corn Meal is in fair request and sales are making at 1,62a1,69. *Buckwheat* Flour is selling freely from store at $2,25a2,38 per cwt.

GRAIN.—Our market for *WHEAT* is quiet and unsettled. Red Wisconsin is held at $1,46 and prime White Genesee at $1,58, which is from 1c. to 2c. above the views of buyers. The supply is moderate. *CORN* is better under the news, with a fair Eastern demand. Sales 4,000 bu. Western mixed, in lots, at the Road at 83, an advance of 2c. on previous sales. *BARLEY* rules steady and firm, with a fair supply and a good home and shipping inquiry. Sales 20,700 bu., including 7,700 bu. prime two-rowed at 81c., and 13,000 bu. prime four-rowed at 87½a88. Western is held higher and is quiet, four rowed Chicago was offered on 'Change at 85, and 83½ bid. *OATS* are buoyant and in active request. Sales 10,000 bu. prime Western at 50 Fair to good State may be quoted nominal at 47½a49, with none offering except to arrive.

FEED—A firm market with a light supply. Sales. 4,000 bu. 24 lb. feed at $1 per 100 lbs

HOPS—New are held at 35a36c, without sales. Six bales old at 36c. The N. Y. Times says Hops are still coming in very freely, and weakening the market. The receipts of the past six days have reached 1300 bales—an extraordinary quantity at this period. The week's sales comprise 130 bales of this year's growth at 32a35c for first sort; and 26a28c for second do per lb. Offers have been made by country holders of Hops to deliver them in this city at 27 per lb. in parcels of 10,000 lbs. The expectation of free imports from England and Germany has occasioned some anxiety among owners, and they now tender and sell their supplies rather eagerly at the greatly reduced figures above mentioned.—*Eve. Journal.*

WOOL MARKET.

NEW YORK. *Oct.* 15.—The market for all descriptions of this staple during the present week has been rather quiet, owing to the great stringency in the money market. The sales are 40,000 lbs washed African at 30a32c. In fleece and pulled we know of no transactions, the stock of both being lighter than is usual at this season of the year.

Public Sale of Valuable Real Estate

In the County of Fairfax, Va.

HAVING concluded to subdivide and sell my real estate, in the County of Fairfax, I shall offer at public auction, at Fairfax Court House, in the State of Virginia, *on Monday the 21st day of November next*, a very valuable property in real estate, containing about FOUR THOUSAND FIVE HUNDRED ACRES, which will be divided into farms of about 100 ACRES, running in straight lines, and it practicable to allot a dwelling house to each lot. By this arrangement an opportunity will be afforded to persons to purchase small farms, to secure comfortable homes, to cultivate, and improve the property. The residue of the estate, about 4,500 ACRES is for sale by private contract.

This property includes that portion of the estate of the late Thomas Fairfax, called the RESERVE. It commences about six miles from Fairfax Court House, and extends thence westwardly, nearly to Fryingpan Meeting House, and northwardly to the village of Dranesville; is about 18 miles from the City of Alexandria, and the same distance from Georgetown and Washington, D. C., to which there are good Macadamized Roads. Having been the "RESERRE," there is, upon a large portion of this land, an immense quantity of valuable timber, of the original growth, consisting of yellow pine, white and red oak, chestnut and hickory. The soil consists of a clayey loam, in every respect suitable for wheat, corn, and grass, and rests upon a clay sub soil. There is no estate in Virginia, better watered; it abounds with the purest and most limpid streams, and springs that never fail. The climate and health of this locality, are well known, being unsurpassed in this respect There are a number of DWELLING HOUSES, orchards, and other improvements upon this property, many of which are quite comfortable. The Middle Turnpike Road, leading from Alexandria to Leesburg, runs through this property, upon which there will be laid off eight farms, binding upon the Turnpike road. The Alexandria, Loudoun, and Hampshire Railroad, will run right across this estate, and it is thought, very near its centre, bringing it by Railroad, within 16 miles of Alexandria, Georgetown, and Washington City, D. C. And by special agreement with the Railroad Company, there is to be a depot on this property, to which there will be opened convenient roads. As soon as the necessary surveys can be made, Plats will be exhibited, showing the precise locality of the several farms, the situation of the dwellings, timber, wood and water. Persons who wish to purchase, are requested to examine this estate, as it is believed to be the best opening either for large or small farms, which has ever been offered, in this rapidly improving section of the country. The title to this property is unquestionable.

TERMS OF SALE.—One fourth of the purchase money will be required in hand, on the day of sale; the remaining three-fourths will be divided into six equal annual payments, from the first day of January, 1854, with interest, the interest to be paid annually, to be secured by the notes of the purchasers, and a deed of trust upon the land.

Possession of such tracts as may be occupied by tenants, will be given on the first day of January next. As to any other lands, the possession will be given immediately after the sale.

Deeds will be delivered on or before the 1st day of January next. To examine maps of the estate, and for any further information, the undersigned refers to THOMAS R. LOVE, Esq, his solicitor and agent, Fairfax Court House, Va. Sale to commence at 11 o'clock, A. M.

BENJAMIN THORNTON, Sen., Montpelier,
Orange County, Va.
Fairfax Co., Va., Oct. 20—w1m1t

ANDRE LEROY,

Nurseryman, - - - - - Angers, France,

HONORARY AND CORRESPONDING MEMBER, &c., of all the principal Agricultural Societies of Europe and America, begs to inform his friends, and the public in general, that he has just published his Catalogue for 1853, which is the most complete one ever made. All the prices and required information for the importation of all kinds of Trees, Shrubs, Evergreens, Stocks, Roses, &c., will be found in said Catalogue, which can be had free of charge, on application to the undersigned, who will receive and forward all orders, and attend to receiving and forwarding of the trees ordered, on arrival here. It is useless to add that Mr. LEROY possesses the largest NURSERY on the Continent. His experience in putting up orders for America, and the superior and reliable quality of all his trees, &c., is too well established to require any further notice. Orders should in all cases be sent to the undersigned in the fall, with information when the trees are to arrive here, and how they are to be forwarded.

E. BOSSANGE,
Sept. 29—m3t. 138 Pearl-st., New-York.

New-York Agricultural Warehouse.

HORSE Powers, Threshers, Fan Mills, Smut Machines, Grain Drills, Hay Presses, Grain Mills, Corn and Cob Crushers, Cider Mills, and a large assortment of Plows and all kinds of Agricultural and Horticultural Implements.

Peruvian Guano, Super-phosphate of Lime, Bone Dust and other fertilizers of the most superior kinds.

R. L. ALLEN.
Aug. 18—wtmtf. 189 & 191 Water-st., New-York.

FRUIT TREES,

Ornamental Shrubs, Flowering Plants, &c.

J. J. THOMAS has for sale at his Nursery, Macedon, N. Y., a fine and select collection of Fruit Trees, propagated from the BEST PROVED SORTS, consisting of:—

Apple Trees,		....	at 20 cts.	each,	$15 per	100.
Peach,	do	large,..........	20	do	15	do
do	do	1 year from bud,	15	do	12	do
Cherry,	do	with fine heads,	31	do	25	do
Pear,	do	standards,......	50	do		
do	do	dwarfs,........	37	do		
Plum,	do	....	37	do		

Besides the smaller fruits, as Strawberries, Grapes, &c.

For those who desire it, careful selections will be made by the proprietor, of the different sorts, so as to afford a regular succession of the finest varieties, through summer, autumn, and winter, without additional charge.

Also, for sale, a large collection of hardy ORNAMENTAL TREES and SHRUBS, HERBACEOUS PERENNIAL FLOWERING PLANTS, &c., among which are a hundred selected sorts of Roses, the finest Spiræas, Pæonias, Phloxes, Tulips, &c.

Orders directed "J. J. THOMAS, Macedon, Wayne Co., N. Y.," and accompanied with remittances, will be carefully filled, and the trees or plants packed in the best manner for safe conveyance by railway.

9 mo. 8—36—81—m21.

Suffolk Pigs.

THE subscribers are prepared to receive orders for pure Suffolk Pigs, bred from stock imported in 1848 by the late William Stickney, also by the subscribers in Jan. last. Address, JOSIAH STICKNEY, Boston or Watertown, or
ISAAC STICKNEY, Boston, Mass.
September 1—m6t.

Basket Willow.

CUTTINGS of the best kinds of Basket Willow, with directions for planting, for sale at $5 a thousand. by

WM. H. DENNING,
Sept. 22—m2t* Fishkill Landing, Dutchess Co., N. Y.

Suffolk Pigs.

SIX pairs of purely bred Suffolk Pigs, also breeding sows, for sale by C. J. HOLDEN,
Sept. 15—2t* Walpole, N. H.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y. Braintree, Mass.

Osier or Basket Willow.

THE subscriber will have for sale, to be delivered this fall or next spring, about 50,000 Willow Sprouts of the growth of this season, suitable for propagation or for baskets. Each sprout will make from four to five cuttings for planting.

C. N. BEMENT, 341 Broadway, Albany.
Aug 11—w1am4m.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Super-phosphate.

NO expense has been spared in the combination of this most fertilizing manure, which contains the natural properties of plants. It is superior to most of the articles offered for sale under the same name, and is inferior to none, although sold at a much lower price. It is put up in bags, at $40 per ton, of 2000 lbs., cash.

Office of the New-York Super-phosphate Manufacturing Company, No. 159 West-street, New-York.

Aug. 18—w1t—m3t VICTOR R. KNOWLES, Agent

Agricultural Books

THE Tranasctions of the New-York State Agricultural Society, vols. 1 to 9, for sale at the Office of "THE CULTIVATOR," price $1 per vol.

United States Agricultural Warehouse and Seedstore

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine —also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shipping or using on plantation, farm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers. Jan 1, 1853—m&wtf.

Agricultural Implements.

STRAW AND STALK CUTTERS—of all patterns.

CORN MILLS—both of Iron and Burr Stone.

CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.

ROAD SCRAPERS—of several patterns.

FANNING MILLS—of all the best makers.

SAUSAGE STUFFERS AND CUTTERS—of all patterns

VEGETABLE OR ROOT CUTTERS—of approved kinds.

CORN SHELLERS—for hand and horse power.

VEGETABLE BOILERS—of Mott's and Bent's patterns.

GARDEN AND WHEEL BARROWS—of iron and wood.

HAY AND COTTON PRESSES—Bullock's patent

BRICK MACHINES—of Hall's and other makers.

WAGONS AND CARTS.

PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam PLOWS—Eagle, Massachusetts make, and Minor & Hortons.

For sale at the State Agricultural Warehouse, No. 25 Cliff Street, New-York. Nov. 1—tf.

Albany Drain Tile Works,

No. 60 Lancaster Street, Albany, West of Medical College.

THE subscriber, successor to JOHN GOTT, formerly A. S BABCOCK & CO., is prepared to furnish DRAINING TILE of both Horse Shoe and Sole patterns, at from $12 to $18 per 1000 pieces. The tile are more than a foot in length, and fully equal to any of American or Foreign manufacture. They are so formed as to admit water at every joint, and drain the land perfectly from 12 to 20 feet on each side, according to the nature of the soil.

Also, LARGE TILE for drains about dwellings, yards, &c., at from $1 to $8 per 100 pieces. Tile delivered at the docks and railroads free of cartage. Practical drainers, for laying Tile, furnished if desired.

Full directions for preparing ditches, laying tile, &c., will be sent free to those addressing the subscriber, post-paid, The tiles can be sent safely any distance. Orders are respectfully solicited. DAVID CALLANAN.

Sept. 15—w&mtf. Albany, N. Y.

To Flax Growers.

THE subscriber has invented and builds to order, a FLAX MACHINE, which, attended by two hands, is guaranteed to dress from three hundred to four hundred and fifty pounds of flax per day. The saving in labor and tow, by comparison, is considered equivalent to the cost of dressing flax by the best common machinery, used in this country and Europe. The new machine is made with care, to secure strength and durability, and can be run at a speed which requires more than two hands to attend it. Unrotted flax straw can be dressed by it. It can be driven by horse power or otherwise; and, being portable, can be sent any distance. For the present, the price of the machine complete, is $100. Those who wish to obtain it in season to begin operations next autumn, will do well to apply soon.

S. A. CLEMENS.

Springfield, Mass., March 9, 1853.—mtf.

Super-phosphate of Lime.

IN bags and barrels, made by C. B. DeBurgh, a warranted pure and genuine article, for sale by

GEO. DAVENPORT,
No. 5 Commercial, corner of Chatham-st., Boston,
Agent for the manufacturer, with directions for use.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.

April 7—14—1t—mtf

Manures.

PERUVIAN GUANO, 2¼ to 2½ cents per pound.

BONE DUST, when taken in equal quantities $2.25 per barrel.

BONE SAWINGS, separately, $2.50 per barrel.

PLASTER, $1 to $1 25 per barrel.

POTASH, 3¼ to 4 cents per pound.

CHARCOAL, $1 per barrel.

SULPHURIC ACID. 2¼ to 2½ cents per pound.

SUPERPHOSPHATE OF LIME. 2¼ cents per pound.

WOOD'S RENOVATING SALTS, one cent per pound.

For sale at the State Agricultural Warehouse, No. 25 Cliff-street, New-York. LONGETT & GRIFFING.

Feb. 1—ctf.

Farmers, Attention!

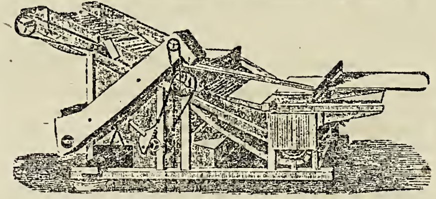
THIS is the proper season to use LEINAU'S AMERICAN FERTILIZER upon your farms. This truly valuable manure can be had at $25 per ton, or $3.50 per barrel, of the proprietor. Try it. It is now on exhibition at the Crystal Palace, New-York, and any amount of names can be given of its successful use. Also, Guano and Poudrette, Phosphate of Lime and Aqua Ammonia.

G. A. LEINAU,

Aug. 18—m3t. No. 19 South Front-st., Philadelphia.

Agricultural Implement Manufactory,

Corner of Carolina and Third-streets, Buffalo, N. Y



PITTS' PATENT SEPARATOR——IMPROVED DOUBLE PINION HORSE POWER—PITTS' CORN AND COB MILL, &c.

I HEREBY give notice, that since the extension of the Patent right on my machinery for Threshing and cleaning grain, I have removed to Buffalo, N. Y., where I have permanently located, and erected a large establishment for the future manufacture of the above machines.

The Separator has been enlarged, improved, and rendered more permanent and durable in all its parts—while the Horse Power, for strength, ease, durability, and cheapness of repair, is not surpassed by any in the United States. This Power is warranted to stand the full strength of eight horses, also to give as much effective or useful power when driven by one or two horses, as any other Horse Power, whether constructed on the endless chain or lever principle.

It was put on trial at the great exhibition of Horse Powers and Threshing Machines, at Geneva, in July last, 1852, where it received the New-York State Agricultural Society's first premium "*for the best Horse Power for general purposes.*"

The Separator, at the same trial, also received the Society's first premium. My machines will thresh and clean from three to five hundred bushels of wheat per day, and other grain in proportion.

Two hundred of the above machines are for sale at the Agricultural Works of the subscriber, in this city, all warranted to be a better article than can be purchased at any other shop, and if they do not prove on trial to be so, I will take them off the hands of the purchasers, at the price they may pay me for them.

I further notify all persons, who are purchasing Horse Powers and Separators to be used in California or Oregon, that I will hold them accountable for any infringement of the rights secured to me by letters patent in the above machines, as I am manufacturing a Horse Power and Separator expressly designed for that section.

All orders for the above machines, hereafter, addressed to the subscriber, will receive prompt attention

April 14—1amc6t JOHN A. PITTS, Buffalo, N. Y.

Hay Press.

DEDERICK'S PATENT HORIZONTAL PORTABLE HAY PRESS.—This Press is manufactured only by the subscribers, proprietors of the Premium Agricultural Works, Albany, N. Y. This Press was in the 16th No. of the Country Gentleman, and the June No. of the Cultivator. Since that time some very valuable and essential improvements have been made. A new and improved capstan has been invented, by which the horse, without being removed from the sweep, operates the follower both backward and forward, thereby dispensing with the windlass (seen in the cut) for drawing the follower back.

Dederick's Horizontal Press, as exhibited at the N. Y. State Fair in 1852, constructed so as to press from each end of the frame towards the center, by means of a single lever or toggle joint, has been abandoned as impracticable. Parallel levers, and pressing from one end of the frame, obviate all the objections against the original plan. The Horizontal Press, as thus improved and now manufactured by us, is universally admired and approved; its advantages, compared with the vertical or upright press, are too numerous to be specified in a limited notice. Descriptive circulars will be promptly sent upon application. Warranted to give satisfaction, or they may be returned. Orders solicited and promptly filled. DEERING & DEDERICK,

Corner of Bleecker and Franklin sts., Albany, N. Y.

Sept. 22—w&mtf.

Hay Press—Dederick's vs. Emery's.

SOME considerable feeling having arisen between Mr. Dederick and myself concerning the originality or priority of designing and improving the Hay press, I have taken considerable pains to ascertain the merits of each, and have learned what I knew not before; and further, feeling a due regard for other's interests, as well as for my own, I here make the following statement:

In reference to the difference between me and Mr. Dederick, I have learned since the publication of my Descriptions, &c., in No. 34 of the Country Gentleman and the Sept. No. of the Cultivator, that I have been laboring under a misunderstanding of Mr. Dederick's claims to originality, as the first designer of a Portable Horizontal Hay Press. I now find that Mr Dederick has a prior claim to the designing of the Horizontal Press, described as mine, and further that the presses built by Emery & Co., were (*with the exception of the substitution of iron for wood in some parts*) substantially similar to the model exhibited at the New York State Fair in 1852, by Mr. Dederick. HORACE L. EMERY.

The above concession having been made by Mr Emery, I have concluded to drop the whole controversy. With reference to the portions of his advertisement not embraced in this concession, the public are already sufficiently informed, and will be able to judge correctly of the merits of the case.

Sept. 22—w1t—m1t. L. DEDERICK.

A Virginia Farm For Sale.

PLEASANTLY situated in Fairfax county, 13 miles from Alexandria, 16 miles from Washington, and about 1½ miles from Lee station, on the Alexandria and Orange railroad, a farm of 218 acres, about one-half intervale or bottom land, the residue a gentle swell of upland. It is admirably adapted to grazing, and is well watered with two small streams of never failing water, and is capable of producing excellent crops of corn, wheat, potatoes, grass, &c. The location is healthy, and the markets as good as any in this country. On the premises is a young and thrifty orchard of 125 apple trees, 25 peach trees, pear, cherry trees, &c. Also a timber lot of 20 acres, (hard-wood,) and 50 acres second growth pine, which will yield 40 cords per acre, worth $2 per cord at the railroad, 1½ miles distant. There is a small dwelling house and other buildings on the farm The fences are tolerable, 2000 new chestnut rails having been added to the fences within two years. Price $10 per acre; one half in hand, the balance in two years. Persons desirous of examining the premises, will call upon Ansel Whedon, Agent, near Lee station. For further information, address

A. & O. WHEDON.

March 18—w2—mtf. West Pawlet, Vt.

Grey Chittagong Fowls.

CHITTAGONG Fowls, pure blood, for sale by

JOSEPH W. WHITE, Gov. St.

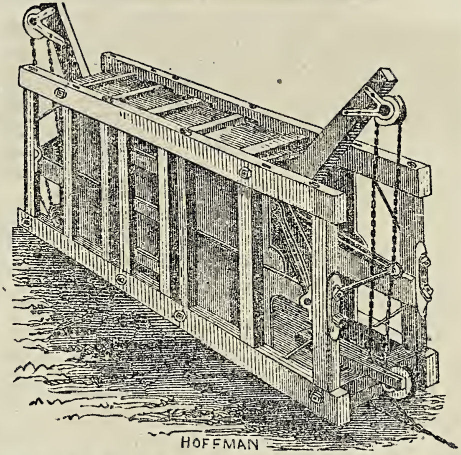
Hartford, Conn., Oct. 1—mtf.

Basket Willow.

CUTTINGS of the best kinds of Basket Willow, with directions for planting, for sale at $5 a thousand, by

WM. H. DENNING,

Sept. 22—m2t* Fishkill Landing, Dutchess Co., N. Y.



Emery's Improved Horizontal Progressive Lever Hay Press.

THE above cut represents the external view of Emery's Portable Hay Press. As seen in the cut, it is closed up, and about midway in process of pressing a bundle of hay. When fully pressed, the ends of the levers which are seen at each end extending above the box, are brought down by the chains and shieves until the levers themselves are in a horizontal position.

The press is provided with followers, working from both the ends toward the center. The chains or ropes from the levers are connected by passing one of them under the press, and joining in a larger chain or rope, this larger one connecting with a capstan, or blocks and ropes

When the press is driven home, the hay becomes pressed into a bundle, standing on end; the side doors are thrown open, while the bands are passed round the bundle and secured; the followers and the doors are loosened, and the bundle thrown out. For operation, the levers are raised and followers drawn back, and the top opened by means of two doors, which are buttoned down in the centre by a crossbar, as seen in the cut. The opening in the top for receiving the hay, being about two feet wide and eight feet long. The press stands on the ground or floor when in use, which makes it convenient for filling and treading the hay.

The size is 14 feet by three on floor, and five feet high, outside measurement; weighs from twelve to sixteen hundred pounds, and is capable of compressing two hundred and fifty pounds of timothy hay into sixteen cubic feet, at the rate of five bundles per hour, with two or three men and one horse; and heavier bundles in proportion, as to size and time.

The above press, with the improvements adopted, and as now constructed by us, making it an efficient machine for the purpose designed, is offered to the public with renewed assurances of its merits. This construction is the first and only successful, Horizontal Press, working from both ends, or that has proved sufficiently strong in its several parts to withstand the required pressure for hay, and at the same time giving satisfaction to the purchaser, They are made of the best of materials, and of the lightest proportions consistent with the resistance to be overcome; making it a neat, strong, light, and desirable press on account of its portability and adaptation for Barn or Field operation.

It is afforded at the low price of $135, including capstan and ropes, or chains for operating it; (which is much less than others of equal capacity,) and as no extra charges or claims are made by any one for any Patent Rights on the same, the Farmer runs no risk of being annoyed by suits at law for owning and using them. EMERY & CO.

Sept. 29—w1t m1t.

Works on Horticulture.

PRACTICAL Treatise on the Culture of the Grape Vine, by J. Fisk Allen. Third ediiton, enlarged and revised. Price $1.00.

Practical Treatise on the Construction, Heating and Ventillation of Hot Houses, Graperies, &c., by Robert B Leuchars—$1.00.

Gardening for Ladies, by Mrs. Loudon. Edited by A. J. Downing—$1.25.

The American Fruit Culturist, by J. J. Thomas. Eighth edition—$1.00.

Family Kitchen Gardener, by R. Buist—75 cents.

For sale at the office of the Cultivator, 395 Broadway.

Contents of this Number.

The Cultivator for 1854 ... 329
The Country Gentleman—Back Volumes of the Cultivator—The Best Fowls, ... 330
Notices of New Books—Albany County Fair, ... 331
Re-seeding to Grass, ... 332
Farming in Windham county, Ct., ... 333
Information Wanted, ... 334
Advantages of Drilling Wheat—Requisites for a Good Farm—Price of Wool, ... 335
Manuring Land, ... 336
High Culture and Good Management—Timber for Posts—Cutting and Steaming Fodder, ... 337
Letters on British Agriculture, ... 338
Green Manuring—Subsoil Plows—Farmers' Clubs, ... 340
Cure for the Potato Rot—Addison County (Vt.) Fair—State Fairs, ... 341
Improved Mowing Machine—Field Beets—Mechanics *vs.* Farmers, ... 342
To Make Butter Come—Drying Fruit—The Tomato, Water-proof Paint, ... 343
New Pears, ... 344
Conservatories and Green-Houses, ... 345
Pomological Meetings, ... 346
Fall and Spring Transplanting, ... 347
Hardy Evergreen Trees—Crossing of the Grape—Strawberries, ... 348
Scratches in Horses—Cough in Horses—Feeding Calves—Black Leg in Calves, ... 349
Suffolk Boar Prince—About Salting Stock, &c., ... 350
Mr. Thorne's Importation of Stock, ... 351
The Sheep-Tick—Fattening Animals—Feeding Cows ... 352
New-York State Poultry Society—Black Leg in Calves—Book Farming—How to Rear Pigs, ... 353
Visit to Mount Fordham—Use of Guano at the South, Good Cultivation, ... 354
Notes for the Month, ... 355
Answers to Inquiries, Markets, &c., ... 356

ILLUSTRATIONS.

Atkins' Automaton or Self-Raking Reaper, ... 336
The Nouveau Poiteau and Howell Pairs, ... 344
Conservatories and Green-Houses, ... 345
Hardy Evergreen Trees, ... 348
Suffolk Boar Prince, ... 350
The Sheep Tick, ... 352

Suffolk Boar Westchester for Sale,

ONE year old; sire. from L. G. Morris' stock; dam, from the Stickney stock. Price, $50. Address

E. H. BLIVEN,
Oct 27—w2tm1t.* *Bridgewater, Oneida Co., N. Y.*

Choice Fowls for Sale.

THE subscriber having devoted special attention for the last three years to the breeding of the finest fowls known, takes pleasure in the announcement that he keeps on hand and for sale, thorough breds from the best stock of Brahma Pootras, Grey Chittegongs. White and Buff Shanghaes, Cochin Chinas; Black Spanish and Bolton Grey Fowls, on favorable terms. Orders by mail promptly attended to.

Address E. H. BLIVEN,
Oct. 27.—w2 m1t* *Bridgewater, Oneida Co., N. Y.*

Coldenham Nursery.

Seven miles west of Newburgh, Orange County, N. Y.

TO NURSERYMEN. FRUIT GROWERS & DEALERS.—The subscriber solicits the attention of all Tree planters, Nurserymen and dealers, to his present Stock of Fruit Trees, which is much larger than he has ever before offered. It embraces among others,

55,000 *Apple Trees,*

from 7 to 11 feet high and of thrifty growth; from $12 to $15 per hundred, and from $100 to $125 per thousand.

Also, a large assortment of Pear, Cherry, Plum, Apricot and Quince trees, Grape Vines, Gooseberries, Currants, Raspberries, &c. A large number of the celebrated "Great Bigarreau" Cherry, an outline and description of which is given in the Horticulturist of Jan'y, 1851.

Trees packed in moss with great care for transportation to any distance, and delivered in Newburgh, from which place boats go daily to New-York, Albany and Troy, or by New-York and Erie R. R.

Catalogues will be furnished to applicants

Direct to Coldenham P. O., Orange county, N. Y.
LINDLEY M. FERRIS.
10th Month 1st, 1853.—w1tm1t.

Fancy Fowls for Sale.

THE subscriber offers for sale one hundred pairs of Brahma Pootra, Shanghae, Cochin China, and Bolton Greys, all warranted pure. THO'S WRIGHT.
Utica, Nov. 1, 1853.—m3t

Choice Fowls.

GENTLEMEN who may be desirous of procuring the best and largest China Fowls in this Country—Cochin China, Black, Brown, Buff or White Shanghaes. Also a few pair of Black Spanish. All these fowls are from the best importations. All orders promptly attended to. Address post-paid 56 Schuyler street, Albany, N. Y.
November 1—m1t* GEORGE ANDERSON.

Peruvian Guano.

WE are receiving our supply of Peruvian Guano per ships Blanchard, Senator and Gray Feather from the Chincha Islands, and now prepared to make contracts for the spring supply. As the demand is large we would advise all who may be in want of this valuable manure to make early application. Price, $45 per ton of 2,000 pounds. Be particular to observe that every bag is branded,

Warranted No. 1 Peruvian Guano.

Imported into the United States by F. BARREDA, BROTHERS, for the Peruvian Government.
LONGETT & GRIFFING,
State Agricultural Warehouse, No. 25 Cliff-street, New-York.
Oct. 20th—w&mtf.

Kentucky Farm for Sale.

THE subscriber offers for sale his Farm, consisting of 300 acres of good land, situated in Clark county, Ind., about twenty miles above Louisville, Ky., and one and a half miles from the Ohio river—200 acres under cultivation, and the remainder heavily timbered with blue ash, black walnut and sugar tree—woodland sowed in blue grass, with a good orchard and ten never failing springs; soil well adapted to blue grass, clover, corn and oats—peculiarly adapted to the grazing or dairy business, as it is near Louisville, and any amount of butter can be disposed of at the river to boats at the highest price—with a fine site for an over shot water mill. Price $30 per acre. For further information address
Oct. 13—w2m2 F. R. MORTON, Shelbyville, Ky.

THE CULTIVATOR:

A MONTHLY JOURNAL OF
Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 CENTS A YEAR.

This standard AGRICULTURAL MONTHLY commences with the new year, its THIRD SERIES. It is published in the same superior style, and will now be more valuable than ever, as the choicest Agricultural and Horticultural articles in THE COUNTRY GENTLEMAN will appear in its pages. The price hereafter will be as follows:

Single copies, Fifty Cents—Eight copies $3—any larger number at the same rate.

All subscriptions must commence with the January No., and the payments must in all cases accompany the order for the paper. LUTHER TUCKER,
Publisher, Albany, N. Y.

Postmasters and all friends of agricultural improvement, are respectfully invited to act as agents for THE CULTIVATOR and THE COUNTRY GENTLEMAN.

THE COUNTRY GENTLEMAN

IS PUBLISHED EVERY THURSDAY,

By LUTHER TUCKER, Proprietor,

At 395 Broadway, Albany, N. Y.

LUTHER TUCKER AND JOHN J. THOMAS, EDITORS.
JOSEPH WARREN, ASSISTANT EDITOR.

TERMS.—To City Subscribers, whose papers are deliverep by carriers, $2.50 per year.

To mail Subscribers, $2.00 a year, if paid in advance—or $2.50 if not paid in advance.

The postage on this paper is but 6½ cents per quarter—payable in advance—to any part of the United States, except the county of Albany, where it goes free.

ADVERTISEMENTS.—A limited number of advertisements will be inserted, at the rate of $1.00 per square of 12 lines for the first insertion, and 50 cents for each subsequent insertion.

FORBES. VAN VRANKEN. N.Y.

THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES.

VOL. I. ALBANY, DECEMBER, 1853. No. XII.

The Cultivator for 1854.

THIS well known Standard Agricultural Journal commences a new volume (the 2d of the Third Series) with the January number for 1854, at FIFTY CENTS a year, making it the cheapest as well as the best work of the kind now published. To Clubs of eight or more, it is furnished at 37½ cents per copy.

☞ All new subscribers can be furnished with the first Vol. of the Third Series, for 1853—stitched in printed covers at 50 cents.

THE COUNTRY GENTLEMAN

A WEEKLY JOURNAL

For the Farm, the Garden, and the Fireside.

THIS beautiful and excellent weekly paper has now been published nearly a year, and the gratification with which it has been received by the public, and the liberal circulation already extended to it, show that its general plan and object has met with the hearty approbation of those whose interests and improvement it was intended to promote. It combines in one large sheet, an AGRICULTURAL, HORTICULTURAL and FAMILY JOURNAL, furnishing, beside its large amount of practical matter on Rural Affairs, in its FIRESIDE DEPARTMENT, a choice collection of articles peculiarly adapted to interest and exalt the views and aims of the FAMILY CIRCLE, together with a careful digest of the NEWS OF THE WEEK, and a full report of the PRODUCE and CATTLE MARKETS.

It is illustrated with superior engravings, and printed in a neat and attractive style, making two handsome quarto volumes of 416 pages yearly. Price, Two DOLLARS per annum, in advance.

A new volume commences with the year 1854, for which subscriptions are solicited.

Specimens of THE CULTIVATOR and THE COUNTRY GENTLEMAN will be sent to all who desire them, and POSTMASTERS and others interested in rural pursuits, are invited to act as agents. All letters to be addressed to

LUTHER TUCKER,
Publisher of Cult. and Co. Gent.
Albany, N. Y, *Dec.*, 1853.

☞ Editors with whom we exchange, will confer a favor, by copying the above.

To our Agents and Friends.

In presenting to you the last number of the first volume of the third series of THE CULTIVATOR, we do not hesitate,—believing as we do that the reader will be more benefited than the publisher, to appeal to each and all of our readers, to aid us in the good work in which we are engaged, by renewing and increasing their efforts to extend the circulation of THE CULTIVATOR for 1854.

☞ All those disposed to act as Agents for The Cultivator, will please to remember,

1. That all subscriptions for eight copies or more, are to be paid for at the rate of 37½ cents each, and that the money, with postage stamps for any fractional parts of a dollar, should accompany the order.
2. After an Agent has ordered eight copies, he can order any less number at any time at the club price.
3. The papers will be addressed, when requested, to the individual subscribers, and to as many different post-offices as may be desired.
4. Great care should be taken to write the names and address of each subscriber, distinctly, thus:

John Smith, Washington, Berkshire Co., Mass.

☞ Specimen Numbers and Prospectuses will be sent to all who desire them.

☞ All Agents for THE CULTIVATOR are authorized to act as Agents for THE COUNTRY GENTLEMAN, and to retain a commission, where four or more copies are ordered, of fifty cents on each.

◆

Back Volumes of the Cultivator.

I. The FIRST SERIES consists of TEN volumes, quarto, of which a few copies are yet for sale—price, bound, $10.

II. The SECOND SERIES contains NINE volumes, octavo—price, bound, $11.25.

III. The THIRD SERIES commenced Jan'ry, 1853—consequently the first volume is now completed. Price, bound, 75 cents—put up in paper covers, 50 cents.

☞ Most of the volumes of all the series, can be furnished to complete sets.

☞ All new subscribers for 1854, would do well to order the volume for 1853, that they may have the third series from its commencement.

Address LUTHER TUCKER, *Albany, N. Y.*

The Agricultural Fairs of the Season.

A HISTORY of the rise and progress, and the results which have already grown out of the Agricultural Societies of this country would form a most interesting and instructive article—one quite too long for the columns of this journal. They have, however, had their origin in the minds of those who have seen that combined and concentrated action and generous emulation, were necessary to rapid agricultural improvement; and struggling against general apathy and the difficulties peculiar to their several localities, have risen to a degree of prominence which may safely be taken as the measure of success in farming and the criterion of agricultural spirit in the sections where they exist. They have been instrumental in developing to an unprecedented degree the resources of our soil and of stimulating our farmers to increased effort in making their lands more productive and their business more remunerative. They have brought to their immediate attention new and improved facilities for lessening hand labor, and shown more clearly than any argument that enterprise and skill, coupled with untiring industry, are as necessary to the successful prosecution of farming as to any other employment. They have brought farmers into direct communicatiou with each other, and have been the means of forming and cultivating a friendly feeling and a reliance upon themselves, which are a surety for further advancement. By means of their published transactions, they have stocked the land with an agricultural literature, and made others participants in the benefits which they have secured to themselves.

Fairs have already transpired, the present season, in the States of New-Hampshire, Vermont, Rhode Island, New-York, Pennsylvania, Maryland, Kentucky, Ohio, Illinois, Indiana, Michigan and Missouri, and with the single exception of that in this State, which, from the out-of-the-way place where it was held and the unfavorable weather, fell off both in the quality and extent of the exhibition and in its receipts, have given evidence of greatly increased interest on the part of farmers, and a healthy permanent organization.

The County Agricultural Societies have been no less prosperous, and in some instances have rivalled the State shows in the excellence and variety of their exhibitions. We have been gratified at the multiplication of these societies, for we believe them to be productive of a great amount of good. Based upon the same general principles as State Societies, they come nearer home, and are less in danger of becoming monopolies, or being stereotyped in their policy and action. The publication of the premiums to be awarded, the reports of the fairs, and the processes of farm management in the county papers, and in the transactions issued by most of these societies, arrests the attention of almost every farmer, and makes ignorance as to the beneficial effects of these organizations without excuse.

We have also observed that Town Societies have been increasing, and we note this as a most encouraging fact. The town society is direct proof that a considerable number of farmers are awake to their own improvement, and are desirous to incite each other to systematic effort and assist each other in arriving at a higher degree of farm culture. If your neighbor is making experiments, you will be more likely to derive advantage from them than if you read of some one a thousand miles away who has been doing the same. A very important feature of the town society, is that it promotes individual research and involves individual responsibility. To sustain one properly, each member must have a specific part to perform. He must do something to add to his own knowledge and aid in the enlightenment of his associates. The society is a continual spur to his efforts, and prevents him from settling down in the prevalent notion that "every man for himself" is the best motto for one who would make his business profitable. The frequent meetings of these societies for the discussion of agricultural topics, the comparing of experience, and the forming of plans for future experiment, are calculated to bring about beneficial results. They aid materially in developing the talent for expressing one's thoughts—a talent which our farmers have too long hid away in a napkin; and were they sustained in every town, the remark that farmers have no literary character, no position in public matters, no standing in society, would soon become obsolete.

Ther is no danger that town societies will detract from the interest of county organizations, or that prosperous county societies will make the State societies a secondary matter. On the contrary, these *will mutually* prepare the way for, and build up each other. The efficient member of the town society is better prepared by his drilling in the home club for properly directing the more extensive interests of the county society, and the various counties can join their combined experience to infuse new life into the agricultural body politic of the State. Thus mutually contributing to each other's prosperity, all will be gradually elevated in character.

In contemplating the success which has already attended these organizations, we must not lose sight of the idea that agricultural societies are yet in their infancy, and that they are still to be improved and made more useful. It is not the awarding of large sums of money in premiums, and making the Fairs a sort of farmers' jubilee, that is to render our farmers wiser and promote the interests of sound, scientific agriculture. It is something back of the outside show which determines the actual improvement made, namely, the progress in intelligence of the great mass of our agricultural population.

Let those who are concerned in the management of these societies see to it that new features are introduced from time to time, that new incentives to effort are placed before the farmer, that the standard of excellence is raised every year, and Agricultural. Societies and Agricultural Fairs will continue to be, as they have been, most efficient aids in making the tilling of the soil the most honorable and profitable of all pursuits.

National Exhibition of Horses.

Springfield (Mass.) was for the week of the exhibition, the great center of attraction for all admirers of fine horses. Distinguished public men from all parts of the country, scores of editors, breeders and owners of the best stock in the land, and a large concourse of visitors have been in attendance through all the days of the show. We doubt whether any other exhibition will arouse popular excitement to such a pitch or hold it so long, as a display of horses. People seem never to tire of watching the motion of a high-spirited animal, and with an increase of speed they gather enthusiasm.—Whatever may have been the first impressions of a National Exhibition, there is now but one opinion expressed—namely that it has been successful and highly gratifying.

We published in our weekly journal, a full history of the exhibition, from which we give the following extracts, all for which we can make room in this paper.

With this brief history of the movement, we turn to notice the arrangement of the grounds, and the perfect system and regularity which was maintained through the whole exhibition. A lot of twenty-two acres of fine level sward, situated near the Armory, was fenced in, and furnished on two of its sides with close stalls for horses, numbering more than three hundred. On the west side were arranged tiers of elevated seats capable of accommodating 4,000 spectators. Fronting the seats was the Judges' stand, and between the seats and the stand, a track fifty feet wide and a half mile in circuit was prepared. Each animal entered was designated by a card, stating the number of the entry, the name of the animal, his age, height, weight, breed, where raised, and a blank for the owner's name. Punctual to the moment appointed, horses belonging to each separate class were called to the front of the Judges' stand, and, as the numbers were announced, each animal was driven slowly in review past the stand, and then returned to its place. After this review, all were removed to a portion of the field to be more particularly examined by the Judges. We mention this as an excellent mode of conducting similar exhibitions, and also to pay the Managers the deserved compliment of carrying out their published regulations to the letter —a very unusual thing.

One marked feature of the Exhibition was the grand entry in procession of all the horses on Friday morning. The sun shone brightly, with all the mildness of an Indian summer, and the temperature was that equable mean which pleases every one. We have never seen a more pleasing spectacle than the seats crowded as they were with ladies, all alike beautiful in the distance, and all animated with the enthusiasm of the occasion. The center of the grounds, within the ring, was thronged with horses and carriages, while the course was completely surrounded with the multitude waiting in breathless expectation for the signal. It is given, and the chaos of horses within the track gradually form in order. Stallions, stately and dignified, conscious of the imposing occasion, move slowly on in their pride and strength—others' tread gracefully, keeping time with the enlivening music—others, anxious to see and be seen, eye the crowd on either side and yield with contemptuous disdain to the control of the rein—matched horses, jealous of each others' beauty, seem scarcely to touch the ground—ponies come modestly along in the rear; now all are moving faster—black horses and white, bay and gray, brown and roan, chestnut and cream, are flitting past in rapid and still more rapid succession, constituting a living panorama, unique and beautiful.

We have not time or space to speak of the particular merits of many of the horses on exhibition. The total number of entries was 375. The show of " thorough breds ' was small, only *six* entries being made in the class, and did not attract so much attention as that in the other classes. Of stallions over seven years, there were *fifty-six;* between four and seven, *thirty-three;* three years old, *seventeen;* two years old, *eight;* one year old, *seven;* geldings, one hundred and nine; matched horses, *thirty-three;* fancy matched, *sixteen;* breeding mares, *fifty-two;* breeding mares with foal at side, *nine;* farm horses, seven; ponies, eighteen.

Among the first class of stallions, "Cassius M. Clay" was a favorite and received the first premium, but, to our fancy, his speed is about the only quality that commends him to breeders. Both he and his colts lack that substance and power of endurance which are as necessary in a fast horse as any other. F. A. Wier of Walpole, N. H., exhibited a chestnut Morgan horse of great beauty and fine action, seven years old, weighing 1,113 pounds, sired by Green Mountain Morgan, dam by Morgan Cock of the Rock. A. R. Mathes of Roxbury, Mass., exhibited a very showy and beautiful animal, named "Black Prince," by a Morgan horse out of an English mare. "Rush Messenger," one eighth Messenger, weighing over 1,300 pounds, shown by Hiram Reed, Augusta, Me., was one of the most valuable stallions on the grounds. B. G. Putnam of Orange, Mass., showed a solid, well made horse, named "Young Morgan," sired by Green Mountain Morgan, 15 hands high, weighing 1,150 pounds, color dapple gray.

Among the stallions from 4 to 7 years, were some very superior animals. The horse, "Paul Clifford," owned by F. M. Wilcox, Shoreham, Vt., to which the first premium was awarded in his class, is one of the best specimens of the Black Hawk family of Morgans we have ever seen. He is larger than most of the breed, weighing 1,100 pounds, and combines great muscle and bottom with fine proportions and high spirit.

A horse, named "Flying Morgan," owned by Chamberlain & Gibbs of Petersham, Mass., comes quite up to our ideal of a perfectly symmetrical animal. His height is 15 hands, weight 1,050 pounds, color bright bay, and his action splendid. His sire was Morgan Emperor, got by Bulrush Morgan.

"Flying Cloud," owned by T. T. Jackson, Flushing, L. I., is a six year old Black Hawk, of great merit and promise, and will yet be heard from on the turf.

"North Star," a four year old, by Green Mountain

Morgan out of a Hamiltonian mare, owned by O. Richardson of Cummington, Mass., is worthy of note.

Of all the fine breeding mares, we have only space to mention, the Black Hawk mare "Jenny Lind," dark bay, 15½ hands high, weighing 1,200 pounds, owned by Charels W. Sherman of Vergennes, Vt. She is as perfect an animal as we ever set eyes on.

The show of geldings was very large and attractive. We cannot forbear mentioning an 8 year old chestnut of the Morgan breed, owned by Edmund Boynton of Boston. His weight is 1,000 pounds, and his style and form are most elegant.

The matched horses were not very numerous or as superior as those shown in other classes. As fine spans are frequently shown at our State and County Fairs as any on exhibition.

In looking over the list of entries we are surprised to find that so large a proportion of all the best horses are animals of the Morgan family. The pedigrees in many cases cannot be accurately traced to any of the direct descendants of the original Morgans, but the marks of the blood are not to be mistaken. Among the stallions of all ages, there were some 70 of the Morgan family of which 20 were descendants of Black Hawk. The proportion of breeding mares and geldings is nearly the same. It is only repeating the popular verdict to say that the Morgans and Black Hawks bore off the palm at the National Exhibition, the only fault found with them, being their deficiency in size.

We must not pass over the social and intellectual features of this great gathering. Thursday evening the tasteful mansion of George M. Atwater was generously thrown open to strangers from abroad. Among the guests were Gov. Seymour and Chancellor Walworth of New-York, Hon. Abbott Lawrence and Hon. Marshall P. Wilder of Mass., and many other distinguished public men. The agricultural and secular press was largely represented, and several of the clergy gave the sanction of their presence to the occasion. The politeness of Mr. Atwater and the sumptuous entertainment made the evening pass off to universal satisfaction.

Friday afternoon, the grand agricultural banquet took place. The repast was laid in a mammoth tent, the tables appeared neat, tasteful, and, what is more, they were loaded with substantial food in great abundance, while pears and grapes of choice varieties crowned the feast. Plates were laid for 1,773 guests, and, were nearly all in requisition. A platform was elevated for the Officers, Judges and Invited Guests, and decorated in the rear with National flags, while the tables were ornamented with bouquets and baskets of choice fruit. Hon. M. P. Wilder presided, and when the clatter of knives, forks and plates had ceased, he made a brief congratulatory speech, commenting upon the success and favorable omens of the occasion, the docility, beauty and usefulness of the horse, add tendering his grateful acknowledgments to the residents of Springfield.

Gov. Seymour, of New-York, Hon. Abbott Lawrence, of Mass., Ex-Gov. Floyd and Hon. John M. Botts, of Va., Mr. Chauncey P. Holcomb, of Del., Ex-Gov. Colby, of N. H., Rev. Mr. Huntington, of Boston, Mr. Bigelow, of the N. Y. Evening Post, Dr. Holmes, of the Maine Farmer, and Mayor Rice, of Springfield, made appropriate speeches in response to sentiments, a particular notice of which our limited space compels us to exclude.

At the close of the speaking the Premiums awarded were read, and thus closed the First National Exhibition of Horses. The Premium animals were shown on Saturday, and a public auction sale took place. The bidding was not spirited, and no very high prices were obtained. The entire receipts for tickets sold and entry fees amount to nearly $10,000, and will more than cover the expenses.

The entire award of Premiums we give below.

THOROUGH-BRED HORSES.

Judges.—Col. T. P. Andrews, U. S. A.; Joseph H. Billings, Mass.; G. A. Austin, Vt.; J. H. Godwin, New-York.

Stallions.

First and only premium of $100 to "Bob Logic," owned by J. H. Hutchins, Montreal, Canada.

Brood Mares.

1. To "Lady Digby," owned by Jas. Turner, Boston,.$100
2. To "Lady Sussex," owned by Dr. J. G. Bunting, Lewis Co., N. Y.,.............................. 50
3. To "Jenny Lind," owned by A. L. Bingham, Cornwall, Vt.,.............................. 25

STALLIONS OF 7 YEARS AND OLDER.

Judges.—Hon. John M. Botts, Va.; Maj. James Hamell, Penn.; Col. Thomas Adams, Mass.

1. To "Cassius M. Clay," owned by J. H. Godwin, New-York,..............................$200
2. To Morrell horse owned by F. Morrell, Danville, Vt., 100
3. To "Rush Messenger," owned by Hiram Reed, Augusta, Me.,.............................. 50
4. To "Black Morgan," owned by Francis Twitchell, Jr., Petersham, Mass.,.............................. 25

Gratuities of $10 each were awarded as follows:—

To "Ashuelot Morgan," owned by Taft & Bowen, Richmond, N. H.; "Rattler," owned by James Brigart, Kingsbury, N. Y.; "John Anderson," owned by C. P. Currie, N. Y.; "Oscar," owned by Wm. M. Olcott, Michigan; "Deerfield Morgan," owned by F. A. Wier, Walpole, N. H.; "Lone Star," owned by H. Ball, N. Y.; "Chesterfield Morgan," owned by E. B. Cavender, Keene, N. H.; "Bay Kentucky Hunter," owned by H. A. Longley, Belchertown; "Bay State Morgan," owned by John Chapin, Greenfield; "Flying Morgan," owned by R. M. Adams, Burlington, Vt.

STALLIONS OF 4 TO 7 YEARS.

Judges.—Moses Newell, Mass.; Jas. M. Wayne, Ga.; Benj. Thurston, Mass.; Warren Delano, Jr., N. Y.; James DeWolf Perry, R. I.

1. To "Paul Clifford," owned by Hudson & Wilcox, Vt., $100
2. To "Flying Morgan," owned by John Chamberlain and Hiram Gibbs, Mass.,.............................. 50
3. To "Young Black Hawk," owned by S. Hooper, Ms. 25

A gratuity of $15 to "Flying Cloud," owned by Timothy T. Jackson, Flushing, L. I.

A gratuity of $10 to "Canadian Leopard," owned by Ira Griffin, Mass.

A gratuity of $10 to "Raven," owned by Robbins Battell, Norwalk, Ct.

Diplomas to "North Star," "Flying Cloud," "Raven," "Cub," "Black Hawk," "Young Eclipse," and "Black Hawk."

COLTS.

Judges.—Dr. E. Holmes, Me.; Sheldon P. Leavitt, N. Y.; Geo. D. Wheeler, N. Y.; J W. Proctor, Mass.

Stallions of three years old.

1. John R. Briggs, Springfield,..............................$50
2. Levi Coe, Middletown, Ct.,.............................. 25
3. Barnes Davis, Vernon, N. Y.,.............................. 20

A discretionary premium to Edson A. Burchard, Shoreham, Vt.

A diploma to E. C. Brooks, Lawrence, N. H.

For best Filly.—The premium of $25 to Edmund Bush, Sheffield, Mass.

Stallions of two years old.

1.	Isaac Crispell, Hurley, N. Y.,	$25
2.	Mala Cowles, Belchertown, Mass.,	20

A diploma to Solomon West, East Brookfield, Mass. Also to Geo. A. Hunn, Hartford, Ct., for two year old gelding.

A diploma for *best Filly* of two years to John H Coffing, Great Barrington, Mass. The premium for best filly of two years was not awarded, there being only this single entry.

Stallions of one year old.

1.	T. T. Jackson, Flushing, L. I.,	$25
2.	Nelson Richards, Panton, Vt.,	20

Diploma to Capt W. A. Newman, U. S. A., Vergennes, Vt.

MATCHED HORSES.

Judges.—Chauncey P. Holcomb, Del.; Edward Harris, N. J.; J. D. Weston, D. C.; Horatio Sergeant, Mass.; Joseph Warren, N. Y.

1.	Lewis Gale, Barre, Vt.,	$100
2.	L. B. Chapman, Windsor Locks, Ct.,	50
3.	M. H. Griffin, Middletown, Ct.,	25
4.	S. C. Hall, Manchester, N. H.,	20
5.	T. J. Shepard, Springfield, Mass.,	20

Diplomas to L. A. Phillips, Providence, R. I.; Nathan Bassett, Columbia Co., N. Y.; J. H. Tuttle, Ct.; Lathrop & Shepard, Mass.; David P. Foot, Ct.; Genery Twitchell, Boston.

FANCY MATCHED HORSES.

Judges.—Ex-Gov. Anthony Colby, New-Hampshire; Dr. Meade, R. I.; Henry Fuller, Mass.; Charles H. Childs, Ga.; George J. Pumpelly, N. Y.; Benjamin Wheeler, Mass.

1.	D. Sanderson, Somerville, N. J.,	$100
2.	Doty & Hubbard, Montpelier, Vt.,	50
3.	Francis T. Cordis, Longmeadow, Mass,	25
4.	James Reed, Palmer, Mass.,	25
5.	Josiah Crosby, North Andover, Mass.,	20

Diploma to J. Wilcox, 2d, Meriden, Ct.

GELDINGS.

Judges.—Wm. S. King, Boston, Mass.; John S. Walker, New-Hampshire; J. S. F. Huddleston, Mass.; Albert S. Gallup, R. I.

1.	To "Daniel Webster," owned by Ebenezer Flagg, Worcester, Mass,	$100
2.	(no name,) owned by A. F. Smith, Worcester,	50
3.	To "Billy Grey," owned by Francis Twitchell, Framingham, Mass.,	20
4.	To "New-England," owned by Geo. R. Wesson, Worcester, Mass.,	20

Diplomas to Dr. Bates, Worcester, Henry Adams, Lowell, Mass., Jeremiah Sheldon, Burrillville, R. I.; S. H. Dumas, Concord, N. H.; William Beardsley, Albany, N. Y.; Geo. Thompson, Boston. John Goodrich, Springfield, Mass.; Wm. P. Peff, Albany; Warren Clifford, Worcester; J. B. Crosby, Boston; Charles Robinson, Fishkill Plains, N. Y.; Mr. Green of Amsterdam, N. Y. and Geo. Lovejoy, Lowell, Mass.

BREEDING MARES.

Judges.—B. V. French, Mass.; W. H Ladd, Ohio; M. Gowdy, N. Y.; W. Pyncheon, Mass.; Thomas Motley, Jr., Mass.

1.	Charles W. Sherman, Vergennes, Vt.,	$100
2.	J. T. DeWolf, Bristol, R. I.,	50
3.	George A. Kibbe, Springfield, Mass.,	25
4.	Amos Felch, Limerick, Me.,	20

Diplomas were awarded to Otis Learned, Oxford, Mass.; Francis Willson, Hinesburgh; William Beardsley, Albany; Orrin How, Hardwick, Mass.; Stillman French, Keene, N. H.; Henry Alexander, Jr, Springfield; Philip Bacon, Simsbury, Ct.; Geo. M. Atwater, Springfield; Benjamin Pease, Warehouse-Point, Ct.; F. Stiles, Jr., Clappville, Mass

BREEDING MARES WITH FOAL BY THEIR SIDE.

1.	E. P. Walton, Montpelier, Vt.,	$100
2.	Judson Nichols, Flushing, N. Y.,	50
3.	Robert Pomeroy, Pittsfield, Mass.,	20

Diplomas were awarded to George Swetland, Springfield, Mass.; B. W. Hamilton, West Hartford, Ct.; Robt. Tucker, Ware.

FARM OR DRAUGHT HORSES.

Judges.—Rev. Mr. Sewall, Mass.; Henry Fuller, Jr., Mass.; Thos. Hancock, N. J.; Henry A. Dyer, Ct.; George P. Delaplain, Wis.

Pairs of Horses.

1.	C. Fonda, Clifton Park, N. Y.,	$50
2.	H. J. Chapin, Springfield,	25
3.	E. Trask, Springfield,	20

Single Horses.

1.	First premium (not awarded)	$25
2.	E. & E. A. Rice, West Meriden, Ct., the only entry,	20

PAIRS OF PONIES.

Judges.—John Barstow, Ct.; C. W. Bellows, Mass.; S. J. Capen, Mass.; Homer Foot, Mass.; E. Dickinson, Mass.

1.	J. L. Briggs, Springfield, Mass.,	$50
2.	Warren Daniels, Bellows Falls, Vt.,	25
3.	John Moulton, Framingham, Mass.,	20

Diplomas were awarded to William Jay, Jr., N. Y., and L. V. H. Crosby, Springfield, Mass.

SINGLE PONIES.

1.	P. T. Kirby, Half Moon, N. Y.,	$25
2.	James Bird, Hartford, Ct.,	20

Diplomas were awarded to James Reed, Palmer, Mass.; Dan'l P. Riley, Salem, Mass.; R. P. Brown, Palmer, Mass.; U. Bowen, Richmond, N. H.

Death of John Delafield.

It is our painful duty to record the death of John Delafield, of Oaklands, Seneca county, which melancholy event occurred suddenly at his residence, Saturday, Oct. 22. Thus another of the most active and efficient advocates of agricultural improvement has closed his labors and gone to his last resting-place. To his friends, Mr. Delafield was known as an enthusiastic, whole-souled man, ever zealous in some good work. For many years he has been prominent in promoting the agricultural interests of the State.

Since the expiration of his term of Presidency of the State Agricultural Society, nearly two years ago, he has devoted himself to establishing an Agricultural College, which he believed to be an imperative want. He has lived to see his favorite project almost realized, as he assured us only a few days before his decease that its prospects were encouraging, and he hoped soon to see it in successful operation. The many who have known him will join us in deploring his loss as a public calamity, and in expressing a high appreciation of his excellence in both public and private capacity.

Experiment with Indian Corn.

Editors of the Cultivator—At the request of a number of my neighbors and friends, I transmit to you the result of an experiment made by myself the present season in raising corn.

At the time of gathering my crop of corn last fall, I procured a number of stalks, each having two ears upon it, which I reserved for seed last spring. On the 17th of May last, I planted two rows of corn, 20 rods long; the seed for which I took from the ears which grew nearest the root of the stalks preserved as above; I then planted two rows adjoining, the seed for which I took from the ears which grew the highest upon the stalks preserved last fall.

These four rows had equal care and attention during the season. The two planted from the corn which grew nearest the root, grew more rapidly and eared better than the other. The four rows were cut up Sept. 19th. I husked out ten hills from each two rows Oct. 8th, and for my own satisfaction weighed the corn, in the ear. The weight of the ears taken from the ten hills planted from corn growing nearest the root, was 17¼ pounds, while the weight of the ears which grew on the other ten hills was 9½ pounds. I am fully satisfied from the result of this experiment, that farmers should preserve, not the largest ears which grow on the stalk for seed, but those growing nearest the root of the stalk. John Bennett. *Bloomingburgh*, *Sullivan Co.*, *Oct.* 15.

Seneca County.

Ten years ago, and this county did not assemble a score of animals for exhibition! This year about 400 animals of full blood and high grades, were exhibited on a beautifully arranged fair ground in the busy manufacturing village of Waterloo.

This village, covering a wide area on both sides of the Seneca river, resounds with the hum of the woolen and cotton factories, the heavy blow of forge hammers, and the musical click-clack of grain mills. This village, rejoicing in its own prosperity, induced the lords of the soil to hold their annual festival within their corporate bounds, by the solid argument of $650, contributed to the funds of the society. Thus reinforced *The Fair Grounds* were substantially inclosed by a high board fence, covering an area of six acres. The entrance gates,—business office, and ticket offices, were on the southern side, occupying the lowest portion of the grounds. Ascending a gentle slope directly in front of the main entrance, you reach the speakers' tent, elliptical in form, with seats rising in tiers to the top of the wall screen, affording comfort to 2,500 persons—the area was floored with planed and jointed boards. The speakers' platform was wide and large enough to give luxurious seats to all the officers and the executive board; chandeliers, and lamps pendent from the huge tent poles and temporary frames, indicated a prolonged visit to this fairy palace. Near to this spacious tent was the Santa Claus, or Saint Nicholas tent of the society; furnishing a steady stream of viands, for the thousands whose appetites seemed to grow with the very food it fed on; pure water was the beverage which, by unanimous consent, alone stimulated the pleasures of the week. Beyond these tents were large inclosures of cattle, sleek, fat and inviting. We understand that 30 head of noble beasts were sent in by a farmer Judge of Seneca Falls; five noble yoke of sturdy oxen, the property of a Seneca farmer, produced irresistible influences upon the pockets of eastern visitors. A prominent farmer of Cayuga, carried off in triumph four remarkable animals of the short horn breed, raised by Mr. Bacon, one of the earliest friends of that class of animals, and whose public spirit led him to the importation of the best stock from England in 1834. The President of the society had very fine stock on the ground. He was proof against temptation, intending, as is said, to give the new agricultural college, the benefit of his choicest stock. Sheep and swine in large numbers were found arranged along the entire northern and western fences of the inclosure; and along the southern fence was a display of the feathered tribe, far exceeding in beauty of plumage and of arrangements for their protection, any thing seen at the State fairs. The horse and cattle rings occupied areas of 200 feet diameter, affording space for a display of horses of all ages and characters, such as is rarely seen. Thousands of eager spectators, amateurs and purchasers thronged the horse ring for two days; so great was the number exhibited.

The Mechanics' tent was not as full as might have been expected in this County. The Floral tent, and Household products, made ample amends for the deficiency of Mechanics—extraordinary needle-work, in a variety of styles, evinced the handy-work of Seneca's fair daughters,—so also did the butter and cheese, while Horticultural products proved that these fairs have done more than any other means to awaken farmers to improvement, and the laudable desire to excel. Many new varieties of fruits, flowers and vegetables, ornamented the long ranges of tables, presenting new elements for rivalry. A long list of articles under the head of discretionary objects, or articles, contained matter for consideration and thought.

A reference to the list of awards can alone present them duly to the public eye. They were far too numerous for this rapid notice. It was supposed that 4.000 persons were on the grounds during the first day. And on the second day, we heard the number estimated from 6,000 to 10,000. The society's immense tent was crowded by seven o'clock, p. m. The President, with his lady and party, appeared on the floor a few minutes after seven, and a collection of happier persons never was before assembled; the dancing opened with fifty sets of cotillions—a full band gave life to the scene, and sustained the nimble spirit of mirth, till the morning opened her golden gates, and the busy day claimed the attendance of all her industrious sons,—and made even "a July's day appear as short as December's." Nearly twenty-five hundred persons were thus made happy and joyous by the *Harvest Home.*

On the last day, multitudes gathered on the farm of the Rev. Mr. Lane to witness the plowing match. Thirteen plows started for the prizes—many of which were doubly won, by excellent work.

At one o'clock of this day the large tent began to fill; every seat was occupied before two o'clock, when the President, Mr. Delafield, called the Society to order. A beautiful extempore prayer, filled with praise and thanksgiving, was offered by the Reverend pastor of the Dutch Reformed Church of Waterloo; at the close of which, Mr. Delafield stated that "Colonel B. P. Johnson had not yet arrived, from whose lips all present would have gathered wisdom, and from whose experience all would have derived improvement in their agricultural systems and practice." Mr. Delafield apprehended that some accident, or unavoidable event had interfered with Col. Johnson's intentions and the farmers' hopes. He then proposed reading the reports and awards of the Judges, which occupied the Society the remainder of the day. The President made appropriate remarks and adjourned the meeting after three days of festivity, free from every appearance of error—days entitled to the top of admiration, and worth what's dearest to the world. *

Glass Water Pipes.

We make the following extract from a private letter from a subscriber in Otsego county. Glass pipes for conveying water, were made in this city as an experiment, some years since, and we understood at the time that some of them were laid for Union College, Schenectady. We should be glad to hear how they answered the purpose.

"While writing, allow me to call your attention again to the subject of 'glass pipes' for house purposes. It has for some time seemed to me rather strange that none of our manufacturers have turned their attention to the making of an article so beautiful for the purpose and so durable in its nature. Surely a glass pipe of half or one inch bore, and of, say 18 inches in length, with taper and socket ends, to make tight joints, could be made for a price so reasonable as in time to supersede the use of metal ones. They could be laid in cement and would last for ages, and always free from corrosion. Please stir up the glass men once more."

Quackery in Agriculture.

We have received a copy of an address delivered at the late Fair of the Mercer Co. (Pa.) Agricultural Society, by JAMES GOWEN, Esq., of Mount Airy. Mr. G. has been long and extensively known as an intelligent farmer and as an enthusiastic and zealous friend of agricultural improvement; and his address is what might be expected from such a source—sound, practical and pointed. Among other things, he is very severe upon the "self-styled Professors of Scientific Agriculture"—men "who will presumptuously overwhelm you with strange terms of agricultural chemistry, taken from Liebig and Johnston, of which they know not the import themselves." That his censures are, in the main, just, we do not doubt, for there has been, as Mr. G. says: "Too much of this plating and gilding, of late. Men who never tilled a piece of land, planted a tree, raised or exhibited an animal in all their lives, are now, by false coloring and idle pretension, transformed into Tulls and Loudons—leaders at Agricultural Clubs and Societies, where their twattle and professions pass frequently for sense and experience, with those that know no better. Some of these are ever displaying their operations over a vast and boundless field; while others of them are busy at cutting out work in the Moon or in the 'Isle of Sky.' To use an old 'salt' or sailor's expression descriptive of a fresh water sailor, 'they are always found in everybody's mess but in nobody's 'watch.'' The end of all this will be, if not timely checked, that the true Disciples of Improvement will become lukewarm when they see the position assumed by mere professors and pretenders."

◆

BENEFIT OF MULCHING.—C. SMITH of East Hamburgh, Erie Co., N. Y., writes, "I set 700 apple and pear trees here a year ago last spring, and although the season was awfully dry, *I did not lose one tree*, because I mulched them—so far from it, they have made a fine growth."

Salting Hay and Cattle.

To the Editor of the Country Gentleman:

SIR—I have been much interested in the remarks of your correspondents upon the subject of salting hay, and of salting stock in the winter; and am pleased to observe that the better opinion as to the salting of hay is against the practice. Upon my farm it has never obtained, and perhaps the following circumstance may have conduced to the course.

In an early day in this County, and that was not many years since, a landed proprietor, who was engaged in supplying the Quebec market with masts, and of course had many ox teams in his business, sold a farm to a shrewd and not over scrupulous person, who was to pay for the same in well salted, and cured hay, at twenty dollars per ton. As salt was very much cheaper than hay at such a price, the consequence was, that a small bundle of hay would weigh *the* ton, and no question could arise as to its being "well salted." A further consequence was, that every animal in these immense teams soon had a sore mouth, scoured, became weak and reduced to a pack of scurvy bound bones.—Great complaint was made by the poor beasts, but their ignorant drivers could not discover the cause. The next winter the same thing was repeated *until the farm was paid for*, when the poor oxen began to rejoice once more with sleek hides, that they might eat no more salt than they desired.

With regard to the salting of cattle in winter, the practice upon my farm, where a hundred head or more are usually wintered, is this: the cattle are mostly stabled—having good boxes from which to eat—the stalks and coarse fodder cut—not fed so closely as to eat every thing—the boxes are cleared of orts daily and fed to colts and such few cattle as may be out, two or three mornings in the week. After they have been picked over, the remains are raked and gathered into numerous small heaps upon the clean snow, in several yards, about ten o'clock of the day, and wet with good fresh brine. The cattle in the stalls having had their roots, are let out, and these little heaps of orts are not long in disappearing. The remains, if any, are of "no particular harm" to the manure heap. In this way, cattle not being fed for beef upon turnips will obtain all the salt they require; but, if fed upon turnips for the shambles, they will require salt by them constantly. Beef made by turnip feeding tastes strongly of the root unless salt be used unsparingly; a gill may be thrown upon the roots for an ox, daily, without harm, and even then, it is safer to feed the meal of coarse grain a month before marketing.

Respectfully yours, H. G. FOOTE.

Ogdensburgh, St. Lawrence Co., N. Y., Oct. 12, 1853.

◆

RARE CASE.—At the late fair of the Rutland (Vt.) County Agricultural Society, a yearling heifer of large size, was exhibited by Mr. N. H. WINCHELL of Poultney, which attracted much attention from the fact that she has given four quarts of milk per day for two months past, although she has *never had a calf.*

Value of Ashes, Lime, &c., to the Farmer.

Messrs. Editors—Though a lecturer upon scientific and practical agriculture, I have never been much in the habit of reading agricultural papers or of writing for them. But, in looking over some of the old numbers of the Cultivator, I find several questions, propounded by different individuals, relative to the use of lime, plaster, phosphate, and superphosphate. One inquires which is the cheaper, ashes at fourteen cents a bushel, or superphosphate at six cents a pound, to apply to oat stubble for wheat. Another asks the best time and mode of applying lime, plaster, and ashes. Another, whether they should be used separate or may be mixed.

I do not know but that all these questions have been answered correctly by abler men than myself, and also to the satisfaction of the inquirers; but whether they have or not, I would like to give mine opinion in the matter. And if my philosophy is not right, it may be reviewed and corrected, if worthy of notice. I propose then that ashes at twenty-five cents a bushel are cheaper than phosphate at six cents a pound. Several salts are necessary for a full growth and maturity of a wheat crop. In using the superphosphate of lime, the farmer uses but *one* of the salts necessary for the perfection of a wheat crop. But, in the use of ashes, the farmer applies to his land, besides the several salts of potash, more or less of several other salts, no less valuable, according to the kind of timber from which the ashes were produced. Ashes from the beech contain nearly twenty per cent. of the salts of phosphoric acid. According to the analysis of De Saussure, one hundred pounds of ashes would be sufficient for the production of 3,820 pounds of straw. But, besides the other salts of potash, the ashes either furnish, ready prepared or produce after being put upon the land, a good supply of the silicate of potash, a salt as necessary as any other salts of potash, or even as any salt of phosphoric acid. But the ashes, besides furnishing several important salts, may perform another office in the economy of agriculture, no less important. In the preparation of compost, they may be used as a solvent, to convert into important manures many other things, useless without being dissolved. And this too without destroying any of their efficacy as salts.

Ashes then should never be used alone, but always in making compost, if they can be had. But, if every farmer knew the full value of ashes, there would be none to be bought. Every farmer would use his own. But the farmer has another resource. Bones are worth to him six cents a pound. All the bones then that can be collected should be dissolved and thoroughly mixed with the general compost, that every part of the field may receive an equal share. But ashes serve other purposes still important. They give compactness to light sandy soils, and render heavy clay soils light and friable. They serve too to neutralize whatever superabundance of acids there may be in any soil. Farmers are beginning to feel more and more, that they must do something to enrich their farms. This is right. But in the prosecution of their inquiries, they commit one great error. Instead of waking up their own resources, they are turning their attention away to the Lobos Islands and to the factories of superphosphates for assistance.

Now, the error lies in going from home for assistance. For not one in ten thousand of the farmers of our country will ever go beyond his own farm for any means to enrich it. Let the inquiry of every farmer then be, how can I, within and of myself, and on my own farm, enrich my farm? That is the question, Mr. Editor. Yours, most respectfully, J. L. Edgerton.
Georgia, Vt., Oct. 27, 1853.

Interesting Experiments with Manures.

An experiment on raising Indian Corn, by the use of various manures, in the year 1853, by H. H. Eastman, *Marshall, Oneida Co., N. Y.*

MANURES.			*Weight produced in the ear.*
Kind used.	*How applied.*	*Quantity used.*	
			lbs. oz.
No manure,			12.08
Compost,*	In hill,	Half shovel full,	25.12
do	Top of hill,	do	21.08
Lime,	In hill,†	Table spoon full,	11.12
do	Top hill,	do	16 08
Gypsum,	In hill,	do	18.00
do	Top hill,	do	18 08
Ashes,	In hill,	do	18.00
do	Top hill,	do	17.08
Equal p'ts lime gypsum, ashes,	In hill,	do	19.00
do	Top hill,	do	17 00
Guano,	In hill,‡	do	19 08
do	Top hill,	do	23.04
Super-phosphate of lime,	In hill,	Two thirds of a table spoon full,	21 04
do	Top hill,	do	17.08
Poudrette,	In hill,	Large table sp'n full,	18.12
do	Top hill,	do	17.00
Experiment in another part of the field—soil about the same.			
No manure,			34 00
Guano,	In hill,†	Table spoon full,	27.00
No manure,			34.00
Super-phosphate of lime,	In hill,	Table spoon full,	46 00
Poudrette.	In hill,	Large table sp'n full,	40 00

Remarks.—*The "compost" used was composed of muck and barn yard manure in equal parts, well rotted, and mixed with half a bushel of gypsum to each load.

† The row on which the lime was applied in the hill presented a sickly growth for the first few weeks.

‡ In the rows where the guano was applied in the hill, about one third of the seed was killed by it. The ears on the row were large and heavy. Where the guano was applied on the hill, the seed all came up.

The rows in the first experiment, consisted of twenty-five hills each; in the second, forty-six hills each. Planted 12th of May, on greensward, plowed eight inches deep. Soil of a calcareous nature. Cultivation as nearly alike as possible. Harvested from the hill, 15th October, and weighed when harvested. The result shows—

1. That barn-yard manure, composted with muck and gypsum, and applied in the hill, is the most valuable manure.

2. That lime, on a calcareous soil, produces no good effect.

3. That guano, in its unadulterated state, is too powerful to be used in the hill in contact with the seed; but on top of the hill is a valuable manure. I applied

guano in the hill on beans and potatoes, and the effect was the same—to kill the seed.

4. That superphosphate of lime, applied in the hill, is a powerful fertilizer, and abundantly remunerating to the cultivator of Indian corn. H. H. EASTMAN.

Experiment in Suckering Corn.

MESSRS. EDITORS—In reply to the "inquiries and suggestions" of Mr. YEOMANS, "upon stripping suckers from corn," you state that you know of no accurate experiments on the subject. I propose to furnish one approximating somewhat to the plan you suggest.

Space was left in the middle of an acre of potatoes, for 100 hills of corn—ten hills each way. This was planted from the middle of an ear, five grains to each hill, and of uniform depth. It came up evenly, and grew without molestation until about six or eight inches high, when small suckers began to spring up from about the base of the main stalks, which I proceeded to remove from alternate rows, not by "*stripping*," as that might lacerate the main stalk and injure its growth, but by *cutting* close down. As often as they attempted to grow, through the season, I removed them in this way; and when the season of harvesting came I had 50 hills of clean, upright growth, and 50 of a bushy straggling appearance, having the suckers all on as they grew.

The former furnished large, well filled, and mostly sound ears, weighing 47½ lbs. The latter, more ears, but not as large or sound, weighing 47¾ lbs.

I regret that the stalks were not weighed, but very well remember concluding that the increase in *good* corn was more than balanced by the greater amount of *stalks* when left to grow natural, and the *trouble* of cutting the suckers.

Gathering them for green fodder, must be a laborious task, and I would recommend as a substitute sowing a small patch to corn, in drills, near the house.—Suckers should be saved for fodder, and I prefer doing it at the usual time of *cutting up* corn. Those which get an early start will be tasseled out and some of them have ears on. (I have seen one with two sound ears and one small one on.)

As the hill is grasped with the hand, all the longer ones will be secured and severed with the main stalks; shorter ones fall by the way and should be gathered and placed inside the stout as it is being formed.

Now, as to the theory of Mr. SCRAM, that the tassel of the sucker supplies pollen to the ear on the main stalk while forming, I would say it strikes one as extremely plausible, and being one of that class that possesses little intelligence upon the subject, but desirous of acquiring more, I would inquire how it happens that a grain of corn planted remote from all others, though growing vigorously and throwing up suckers all about the original stalk, should produce only imperfect ears? I have often heard experienced farmers say it was an indication of a good crop to see corn throw out numerous suckers.

The experiments proposed, to ascertain facts upon this subject, admit of this objection. If suckers do supply pollen to growing ears, then pulling from *alternate rows* would leave suckers sufficient to accomplish what is claimed for them. GEO. W. COFFIN. *Amenia.*

Heavy Profits of Cleanliness.

ALTHOUGH but little sectarian in feeling, we have a high respect for most of the religious sects of the age; yet we think all of them might make a decided improvement in their creeds, by embodying another article requiring strict CLEANLINESS in all their communicants. We once knew an eminently pious lady, on whom this very subject was strongly enforced, with practical results, through a dream. She was not only an inveterate smoker, but suffered the fumes to operate as an antagonistic to cleanliness. She dreamed of her own death, and arrival at the gates of paradise; but the registering angel, to her astonishment and consternation, was unable to find her name. While just on the brink of despair, it was at last discovered, having been almost wholly obscured by a thick cloud of tobacco-smoke! This is a literal fact, and this lady afterwards became widely known for her interest in the cause of Christianity.

It may seem strange to some, that we place this quality in such distinct prominence. This is because its benefits, and the evils of its contrary vice, are so little felt. It is only a proof of the wide prevalence of the evil. In a moral point of view we have little to say, except the simple suggestion of the impossibility, almost, of becoming familiar with the rubbish and filth of an unswept house and unwashed linen, without becoming at the same time too little averse to the rubbish and dust of sluggish morality. For how can one be expected to attain the mental discipline required for moral purity, who is too lazy to preserve a cleanly person?

It is however, in an *economical* point of view, that our present remarks are chiefly intended. We have heard farmers dissuaded from cultivating neatness, as something unnecessary, and urged to devote all their time to such labor as will yield immediate profit. Instead of being embellished with shrubs and shade trees, their door-yards must be marked with the ruts of loaded carts; soap must be economized on wearing apparel, and scrub-brooms on the dairy and kitchen-floor. Now, we hope none of our readers will ever listen to such advice for a moment. We do not believe a word of it.—We have had occasion to visit, both privately and officially, many of the best farms in the country,—those which have proved pre-eminent for their heavy profits by good management,—and without a single exception, they were specimens of neatness throughout. The door-yards were not covered with chips, barrel-hoops, cast-off shoes, or puddles of dish-water; the barn-yard was not reeking with the fumes of manure heaps wasting through summer in the hot sun; nor were the fences lined with thistles, briers, and burdocks; but every part showed the complete control which was exercised by the touch of a master, not only in raising large crops, but in keeping out all intruders, whether animals, weeds, or refuse matter. The same energy which preserved a neat ornamental lawn, kept in motion the clock-work of an excellent management.

A celebrated sculptor, when reproached by a friend for having made no progress in his work, pointed to the statue, and said, "You mistake; I have not been idle; I have re-touched this part and polished that; I have softened this feature, and brought out that muscle; I have given expression to that lip, and more energy to this limb." "Well, well," said his friend, "these are but *trifles*." "True," replied the sculptor, "but trifles make *perfection*, and perfection is no trifle!" This is a truth for all time—for all circumstances—and eminently applicable to the occupation of farming, made up, as it is, of almost innumerable operations. Perfection in farming can never be reached while neatness and cleanliness are left out, and for many things they are perfectly indispensable. The manufacture of butter, for example, is conducted very much in the same manner every where; but what is the reason that full 20 per cent difference is made in some markets in the produce of contiguous dairies? Is it the breed of cattle that occasions the difference—or the food—or the soil? No—although these may have their influence, the great leading cause is the PERFECT CLEANLINESS which the skilful butter-maker maintains in every part of the operation—in all her vessels—in her milk room—in the cattle-yard—not even permitting the entrance of offensive odors. The cost of the labor expended annually in butter-making throughout the country can be only estimated by millions, one tenth at least of the whole value of which is lost by a want of this great requisite—enough, in the aggregate, to buy a thousand beautiful farms yearly. Is not this a pretty large "trifle?"

All animals thrive better when kept clean. A want of comfort is always a waste of flesh. Large amounts of food are yearly expended in restoring what is lost by the discomfort of uncleaned floors, unventilated stables, by uncurried cows and horses, by unlittered pig-styes; and continued losses are occurring by subjecting breeding-animals to offensive odors. We have no doubt that a thorough reform in farm-management in the single point of cleanliness, through all departments, would build an Erie Railroad or dig an enlarged Erie Canal, every year. As for the profits on the score of health, derived by farmers and their families, from personal ablutions, thorough cleanliness in all the preparations of food, and freedom from all miasms from kitchen puddles, foul cellars, and all kindred sources of polluted lung-food,—they cannot be measured by bank-notes and bullion, although the diseases thus occasioned often consume the last vestige of both.

* * *

POTATO ROT IN ENGLAND.—The North British Agriculturist states that at least three-fourths of this year's large potato crop in England had been destroyed by the rot by the 20th of September. That paper strongly recommends the same remedies that have been found of most avail by our best farmers here, namely, the removal of all dirt from the roots, so that they shall be perfectly clean—placing them in rather small masses—and securing a good ventilation of pure air among them.

Farmers' Clubs.

As the season when farmers have more leisure than at any other time of year is approaching, we wish to call attention to the importance of some organized system of improvement. There are abundant facilities for becoming thoroughly acquainted with the most successful modes of culture in practice, and all that is requisite is a sufficient degree of interest to call out the farmers, bring together their knowledge, and form a joint-stock company, with the sum total of each man's wisdom for a capital. Every farmer has had experience, and claims to have derived from it certain rules which guide him in his farming; and yet very few are governed by the same rules. A considerable proportion of farmers read more or less on agricultural subjects, and obtain in this way very much information, which may be made useful to their neighbors. The farmer who has not observed a single new fact or learned any thing worth communicating during the past year, must have been very negligent or extremely dull, and certainly needs such instruction as his more active brethren can give him. Those who know most about agriculture, are ready and waiting to learn more from the experience of the most humble laborer, and all may be alike benefited by making a common fund of all the available knowledge, from which each may draw as he has occasion.

There are many advantages to be derived from well conducted Farmers' Clubs. Among the more important, we mention the following. They serve to create an inquiring spirit, and lead the farmer to reflect upon and digest his observations and his reading. When called upon for an opinion on a subject, the farmer finds that he has not thought upon it sufficiently, or that his notions are in a crude and unavailable shape, and the result is, that he goes home resolved to inform himself with regard to the subject before another meeting. Immediately connected with this, is the tendency to accuracy in experiment which such associations foster. It is not enough that the member of the club satisfy himself with an approximate experiment. He must be careful at every step, and precise in every detail, in order to satisfy all the members of the soundness of his conclusion. The member of the club is more than an individual farmer; he is one of an associate body who are pledged to each other's interests, and laboring for the greatest good of the greatest number. He is a public-spirited man, and soon learns to attach some importance to his observations, and to regard himself as of some consequence in the agricultural world. The club operates against that spirit of isolation and seclusion which is quite too prevalent among farmers. It calls them together—calls for their views, and gives them a dignity and a power they had not in an unorganized condition. It infuses a new purpose into the mind of every individual member, namely, that of doing something constantly for his own improvement, and the progress of his profession. It leads him to read more, and to read more carefully and understandingly, and if he discharge his duties properly, it assists him materially in expressing his ideas. Farmers are not wanting in talent, in natural capacity; they need only practice to enable them to explain to others clearly and forcibly their own persuasions: and this practice is afforded by a club, where every one feels free to express himself, and obliged to contribute something to the general fund. The formation of a club would also enable the farmers in every town to own an agricultural library, and to have the reading of all the best agricultural journals. If at the outset twenty farmers contribute five dollars each, the club will have the means of purchasing many of the standard works on agriculture, and with them can form the nucleus of a library which can be increased as funds will permit. Another advantage, which should not be lost sight of, is the beneficial effect which these club meetings would have on the sons of farmers and the youth generally. They would be led to regard farming as a rational and pleasing pursuit, rather than a slavish drudgery, and would turn their attention to studying agriculture, and to observation, instead of avoiding everything that savors of the soil.

With these remarks, at the request of several correspondents, we present the following form of organization, which is not essentially different from others before published, and may be modified to suit localities and circumstances :—

PREAMBLE.

Whereas, we believe that by familiar consultation, mutual assistance and organized effort, our knowledge of the theory and practice of agriculture may be much increased, and rendered more immediately and lastingly useful both to ourselves and others; and as we are determined to avail ourselves of every means in our power to aid the work of agricultural improvement. and to ascertain as rapidly as possible the principles of successful farming;

Resolved, That we form ourselves into an association, and adopt for our government the following Constitution and By-Laws:

CONSTITUTION.

Article 1. The style of this society shall be the Farmers' Club of ——. Its object shall be the discussion of agricultural subjects, the cultivation of our minds, and the improvement of the agriculture of this town.

Art. 2. Any person residing in the town may become a member of the society, by paying into its treasury the sum of one dollar annually.

Art. 3. The officers of the society shall be a President, one Vice President from each school district, a Secretary, a Treasurer and a Committee of three, to be chosen from the Vice Presidents, who, with the President and Secretary, shall constitute the Executive Board of the Club.

Art. 4. The Club shall hold regular semi-monthly meetings at such time and place as shall be designated by the Executive Committee, from the first of December to the first of April; and monthly meetings during the remaining months.

Art. 5. The Executive Committee shall have the general supervision of the Club; prepare and present topics for discussion; expend the funds of the society for such books and agricultural publications as will in their judgment best further the purposes of the Club.

Art. 6. The Secretary shall keep a full record of the discussions of each meeting, and record them in such form as to make them permanently accessible for reference.

Art. 7 Each member shall, in the course of the year, make a full statement in writing of the condition of his farm, the crops raised, his mode of treatment and the yield per acre, together with the actual amount of profit accruing from his farm; which statements shall be filed and preserved in the library of the Club.

Such By-Laws as will secure the most regular attendance and serve to awaken the greatest interest, should be adopted; and what these should be, those who form the Club will be the best judges. The topics for discussion should be fixed upon at least one month in advance, and every member should make it his business to inform himself thoroughly on the subject previous to the meeting. At the early meetings such subjects as the following might be discussed with profit: What soils are best adapted for the growth of wheat, corn, oats, potatoes, turneps, &c.? and what manures have been found most beneficial for these crops? What rotation of crops is the most advantageous on upland, and what on intervale farms? What are the best methods of securing barn-yard manure, and of managing a compost heap? What mode of applying manure insures the greatest benefit to the soil? What soils should be selected for the growth of fruit? and what is the best method of preparing the soil for and cultivating fruit trees? What are the advantages of deep or subsoil plowing? What breed of cows are most profitable for dairy purposes? What breed of sheep are most profitable to the farmer? In addition to these a great variety of subjects growing out of farm management, and the culture of different crops will arise, which may be debated with profit and interest to every farmer.

If it should be found impracticable to enlist large number of farmers at first, let a few (a half dozen is enough for a commencement) form such a club, and the advantages of it will soon be so apparent that more will fall in and aid in sustaining it. The excuse that you have no one in your town who is competent to take the direction of such an association, is a weak one. Just organize a club, with the determination to make it useful to yourselves; and it will raise up men to maintain and improve it.

Since the above was written, we have received the following:

Amenia, Duchess co., Nov. 4th, 1853.

Mr. Tucker :—You solicit information in relation to a constitution for Farmers' Clubs. I would refer you to the February number of the Cultivator for 1847, page 62.

I would suggest, in addition to this constitution, that farmers carry samples of the corn, wheat and other grains they raise, also fruits; and by comparing their productions and mode of treatment, they would be able to discover errors in names and cultivation.

A club was formed in our school district on a plan similar to the one referred to, and though *wise ones* looked cunning out of the corners of their eyes, and ridiculed the idea of improving from such a source, we met regularly once a week in the school house, and I venture to say that the farmers in this district would not be willing to part with the knowledge gained by thus interchanging opinions, for all the *over wise* will learn while pursuing their old fashioned course. Notes or minutes were kept and published in our village paper, which now form a convenient reference. Plans for experiments were laid out at our closing meeting in the spring on different grains, grasses and the action of various manures on different soils, which are to be reported on at our first meeting in December next. Yours,
Geo. W. Coffin

Horticultural Department.

Notes on Fruits.

The *Ad Interim Reports* of the Pennsylvania Horticultural Society for the present year, contain a great deal of valuable information, from which we glean and arrange the following:—

Summer Pears.—The best summer pear exhibited, was decided to be the *Ott*, and the second best, the *Tyson*. In another place the committee remark of the Ott, that this is the fifth consecutive year they have had an opportunity of testing this fine Pennsylvania variety, and that they regard it as "the most delicious of all summer pears."

The committee classed the flavors of several pears in the following degrees:—Tyson, "best"; Dearborn's Seedling, "good"; Bloodgood, "very good"; Manning's Elizabeth, "very good"; Rostiezer, "best"; English Jargonelle, "good."

Autumn Pears.—The following classifications of flavors were made: St. Ghislain, "very good"; Cumberland, scarcely "good," [we have always considered it as worthless]—Muscadine, "good"; Beurré Goubalt, "good"; Washington, "very good"; Golden Bilboa, "very good"; Urbaniste, "best"; Heathcot, "very good"; Onondaga, "good"; Beurre d'Anjou, "best"; Adele de St. Denis, "good"; Fondante d'Automne, "best"; Fulton, "good"; Doyenné Robine, "very good."

Specimens of the *Kingsessing*, double-worked on quince, measuring three inches by three and one-eighth, and weighing eight ounces, were pronounced "best"—the fruit on quince being broader, larger, and more fair than on pear stock.

The *Moyamensing* remains only a short time in perfection, but the fruit ripens in succession for a considerable period. When eaten at the exact moment of maturity, the flavor is delicious, and the quality "best." An enormous Bartlett, weighed 12 ounces, and measured 3¾ inches long by 3¾ broad.

Cherries.—The Napoleon Bigarreau and the Graffion (or Yellow Spanish) afforded very fine specimens. Some of the former weighed 84 grains, Troy, and of the latter 92 grains. A branch of the Napoleon fourteen inches long, contained 70 cherries, and weighed eleven ounces, of which the wood and foliage constituted two ounces. A branch of the Graffion seven inches long, containing 44 cherries, weighed seven ounces, of which the wood and leaves were one ounce.

Qualities of Cherries.—English Morello, "best" for culinary purposes; Buttner's Yellow, Late Bigarreau (of Kirtland), Napoleon Bigarreau, and Graffion, "very good." The *Conestoga*, a new variety from Lancaster county, of very large size, with a dark purple color, an obtuse heart-shaped form with indented apex, long slender stem, and a purplish, firm flesh, with a sugary and pleasant flavor, was pronounced "best."

Peaches.—The *Jane* peach (Baxter's) very large, and delicious flavor, quality "very good." We had an opportunity of examining this fine late peach, well ripened, from the original tree, a year or two since, and considered it fully equal to Oldmixon freestone, which it somewhat resembles. In another place we learn that specimens of this sort, 10½ inches in circumference, were exhibited—form roundish oblate, greenish yellowish white, with a red cheek, flavor delicious, quality "very good" to "best." The *Susquehannah* peach is described as "of the largest size, abounding in juice of a most delicious flavor; quality, 'best.'" From specimens we have seen at Philadelphia, we should think this variety somewhat allied to Crawford's late, and ripening nearly at the same time. One specimen, if we recollect aright, was *four inches* in diameter,—the largest of any peach we ever had the pleasure of seeing.

Nuts.—Specimens of a seedling English Walnut were presented by Peter Williamson; they measured two inches and a sixteenth long, one and five-eighths broad, and one and a half thick; the shell *remarkable for its thinness;* kernel delicious and of the highest quality. The tree sprung from an imported nut planted in 1846, and is now fifteen inches in circumference at the surface of the earth. It bore last year for the first time. "The attention of nurserymen," remark the committee, "is directed to this variety, which could probably be dwarfed and brought into speedy bearing by being worked on the *Juglans præparturiens.*" It must be, certainly, an extraordinary acquisition, and the question may arise whether it would mature fully as far north as New-York and New-England.

A large variety of the *Shell-bark*, was presented by Abraham Wisner, near Norristown. The nuts measure an inch and three-quarters long, one and five-eighths wide, and one thick, with the hull off. The form is reversed oblong-cordate—the shell thin, and the kernel of the best quality.

Grapes.—Several new hardy varieties are mentioned and described, but although highly spoken of, we are unable to judge of their value for general cultivation, from the Report. One from W. Canby of Wilmington, Delaware, and named the *Delaware Burgundy*,—a rather small purple grape, growing in dense clusters,—is highly commended, and believed to be "a decided acquisition."

Curculio.—The Society offer a premium of one hundred dollars for an effectual and economical remedy for this insect, which shall prove satisfactory to the Society.

American Grapes.

The Diana.—This has fruited with us the present season, and ripened perfectly at least two weeks earlier than the Isabella. It has so far proved the best American grape for a latitude of 42° or 43°. A drawback is its moderate growth and slow propagation.

The York Madeira.—Downing confounded this with the Alexander, to which it has no resemblance whatever, and many cultivators, by a sort of general consent, have adopted the error. The York Madeira most nearly resembles the Isabella, but ripens earlier, is freer from the foxy pulp, and is smaller. Some prefer it to the Isabella, but more usually it is placed below, by those who try both.

Origin of these grapes.—On this subject a correspondent remarks in a late letter,—"I observe that some late writers pretend that the Isabella is a variety of the old Asiatic vine. I don't believe it. Many fellows write with a most comfortable share of ignorance. Professor Lindley's ESSENTIAL CHARACTER of this species is, "leaves sinuate, naked." I know not what "naked" means in a technical sense, but our Isabella is not more sinuate than the Alexander or Catawba, and most remarkably less so than the Sweet Water, which is a genuine Asiatic. Now, in this state of the argument, the musky or foxy flavor of the Isabella, ought to decide the point, and remand it back among American grapes, where it properly belongs. Apropos—Loudon says, 'Many imported varieties have been raised by the American gardeners, [from the Fox grape] and have been sent to Europe under the names of the *Bland*, the *Isabella*, the Oswego, Tokay, &c., but they are all tainted with the bad taste peculiar to the species.' The Bland has no such taint."

Destruction of Orchards by Mice.

LEWIS F. ALLEN gives an account in a former number of the *Agricultor*, of his adventures with mice, in orcharding. He has orchards eight years old and under, and by means of good *cultivation*, has kept them in fine condition, and never lost but few out of thousands Those that stood in grass ground, were dug around, and the surface of the earth kept clear for some feet about them. But in a part of his orchard, in 1851, as he did not wish to plow up the excellent meadow, in which the trees grew, he had four furrows plowed on each side of every row, so as to loosen the earth, and keep the trees in active growth—in which he was quite successful.—The succeeding winter was severe, snowy, and protracted; and the rough surface, consisting of inverted grass, and grass not inverted, formed admirable skulking places for the mice, and the havoc they committed was extraordinary. Many trees were entirely girdled, and some "completely uprooted—the mice having dug into the ground and made their burrows among the roots, cutting them clean off, and on the thawing of the ground they fell out, gnawed down a foot under ground, and sharpened like bean poles." Where the ground was cultivated with corn, potatoes, pumpkins, and beans, trees were occasionally cut, and near the fences where the snow drifted most were girdled,—always above the ground, and in some cases three or four feet high. His present practice is to remove all grass and rubbish from the trees, and pack fresh earth about the trunks.

For the past eight years, we have adopted the practice of making a small conical embankment around the trunk of each tree, late in the autumn, about 9 or 10 inches high. This has never, in hundreds of instances failed to afford complete protection, although some of the trees so treated have stood in ground otherwise covered with long grass. When the mice, which burrow under the snow, come in contact with a steep and smooth embankment of fresh earth, *they never ascend*, but turn to the right or left. There is only one instance in which this remedy fails,—as it has with the writer, among his cleanly cultivated nursery trees,—and this is in such localities as favor the deep drifting of snow. When such drifts become crusted, mice will travel over the crust, sometimes two or three feet above the earth, and wherever they come in contact with trees in these upper journeys, they are sure to strip them. In such cases, the only remedy is to remove the cause of the drifts, or to avoid planting trees where the winds sweep in eddies.

Autumn Transplanting of Fruit Trees.

Hovey's Magazine gives the following reasons why autumn transplanting is preferable to that of spring, on all soils in good condition for the growth of fruit-trees, and they should be planted in no other:

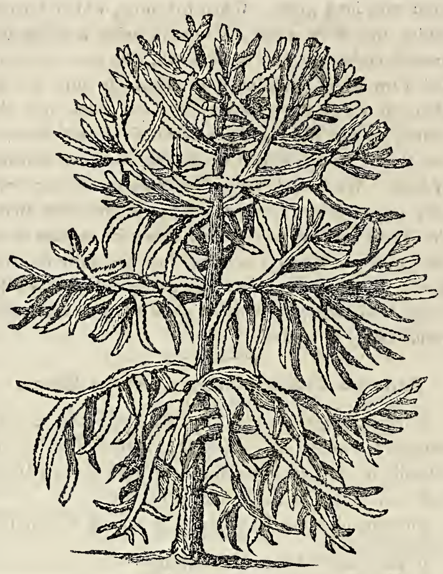
Autumn planting is better than spring for the following reasons:

1. The time is longer than spring.
2. The ground is in better condition.
3. The trees are then in the most dormant state.
4. The roots, where cut, heal better, and are prepared to send out fresh ones even before the frost is out of the ground.
5. The winter and spring rains settle the earth around the roots.
6. The trees are well established before warm weather overtakes them.

Western Apples.

Among the collections of western fruits, which we have received the present autumn, our special thanks are due to Dr. KENNICOTT, and to J. C. BRAYTON and A. R. WHITNEY, of the Convention of North Western Fruit Growers, held at Chicago, for a most valuable collection of *one hundred and twenty varieties*, made up of selections from the specimens exhibited there, many of them of great interest and value. In looking over this collection, we were particularly struck with the great size and beauty of some of the specimens, as compared with those grown in the north-eastern states. Specimens of the Jonathan apple from Illinois were as large as good Spitzenburghs or Baldwins, and possessed a brilliancy and smoothness very rarely equaled by any fruit. Such apples would unquestionably sell in New-York or Philadelphia for five or six dollars a barrel, at the least. Some of the Fallowater were as large as well grown Fall Pippins; and Rambos were at least double the size of ours. Other sorts, as for instance the Esopus Spitzenburgh, Pomme Grise, Pennock, Maiden's Blush, and Yellow Bellflower, possessed no superiority in size We intend to report further, after more mature examination of the specimens.

We are also indebted to J. C. TEAS, for a fine collection of some *sixty varieties*, from the southern portion of Indiana, many of them exclusively western or southern apples, and some of them indicating the same superiority in size and appearance noticed above.



The Chili Pine.

Chili Pine—*Araucaria imbricata of Pavon.*—A native of the mountains of Chili, where it sometimes rises to the height of one hundred and fifty feet. Although at first considered as too tender for this climate, further experience warrants the belief that it is sufficiently hardy for the climate of the middle States, but should be planted on dry soils. When young the branches are whorled, and close to the ground. The color of the foliage is deep green. Its highly ornamental and unique appearance, as will be seen by the illustration, render it one of the most attractive of lawn evergreen trees.

Advantages of Shelter.

It is familiar to many that the shelter afforded by ordinary deciduous forest trees, is so great that young plants or roots will endure the winters in woods, that would be totally destroyed by the cold in open ground. The shelter of evergreen trees is still greater. We have been long since satisfied that many plants which are wintered in green houses, or with thick covering, would be completely protected under the shade of thick evergreen screens, and that great advantage would be found in surrounding gardens or such portions of ground as are devoted to half-hardy plants, with belts of evergreen trees. We observe in the last number of the Ohio Cultivator the statement of a successful experiment of this character, made by Ezra Meech, of Shelburne, Vt., whose residence is upon an exposed situation near Lake Champlain. He has enclosed a large square with evergreen trees, closely planted, which so completely protect his garden from cold winds, that we are assured "many plants, fruits, and flowers," grow there freely, "which otherwise would require a lower latitude by many hundreds of miles." The evergreens are now 25 feet high.

Cracking of European and American Pears.

We never saw a worse example of the cracking of the fruit, than was presented some years ago by a bearing tree of the Dix in the vicinity of Boston—this variety being regarded as one of the hardiest of our American pears. Single instances, however, are not so reliable as a series of instances. C. M. Hovey, who has had ample opportunity of observing, in a region where cracking is a common disease, says that the native sorts are decidedly superior in this respect to the foreigners. "The Beurré Diel, Napoleon, Doyenné, Leon le Clerc, &c., often crack and split open; when on the same soil, and close by the side of them, Swan's Orange, Sheldon, Lawrence, Collins, Seckel, &c., show no signs of such defect. We have just twenty-five American sorts of pears standing in one row, and every one is bearing sound and beautiful fruit; while on the opposite side of the walk, some of the foreign ones have lost half of their crop by cracking open."

Crossing Varieties of Plants.

McIntosh, in his article on hybridizing, after speaking of the extreme caution needed to exclude bees, as a single foot placed in the wrong flower, might disappoint the results of years of labor,—says that bees will rarely if ever light on a flower which has no petals; and hence, if care is taken to clip them off with the scissors at the same time that the anthers are removed, there is a fair chance that these busy dusters will not interfere with the operator's labors. He should be provided with a magnifier, that he may see when the anther has reached its powdery state, and the stigma its viscous condition; and he should also have a pair of small wire pincers, that he may seize an anther loaded with pollen, and spread it with a gentle touch over the summit of the stigma. All these operations are of course to be registered, and the nature of the impregnation marked on the envelope or vessel in which the seed are deposited when ripe.

Experiments with Charcoal.

In page 134 of the Country Gentleman, I observe an extract from the "Report of the Survey of Essex Co.," which I read with much pleasure and interest. And I take the liberty to add my testimony in its favor, and fully confirm all the virtues ascribed to it in the extract. The experiments that have been made here with it, are the following·

The material used being the refuse thrown out of the steam engine, which is mostly composed of charred wood finely pulverized, with only a slight apparent admixture of ashes. It is very black, and indeed has the appearance of nothing but pulverized charcoal. This has been applied to early planted evergeen and deciduous ornamental trees, a coating having been spread over the surface, as far as the ground has been dug around, extending from three to eight feet from the bole of the tree. Its beneficial effects are plainly visible in the strong and luxuriant growth the trees have made, and the dark green of their foliage. I attribute this to the moisture-retaining nature of charcoal when spread over the surface, thereby preserving the roots from drouth. I am also the more convinced of this quality as we had several flower beds covered in the same way, and during the past dry season, when almost every thing was burnt up, the vates the soil; not another gallon ought to be wasted, nor another shovel-full spread along the highway or thrown into the streets; it should be preserved and made use of with jealous care whenever and wherever it can be got. It cannot I think be misapplied. C. S.

Sites for Peach Orchards.

Intelligent cultivators have been long familiar with the fact, that the peach crop more uniformly escapes the frost, on hills, and in exposed localities, than in warm valleys. On hills, the wood ripens early and becomes hardy, and the frosts are not so sharp, although the cold winds may be more sensibly felt by animals and men. We have long entertained the opinion, that by a selection of aspect, and the adoption of shelter, there is scarcely a county in the northern states, where peaches might not be raised with considerable uniformity. By shelter, we mean shelter from the sun on frozen trees, more than mere shelter from the cold.

A late number of the *Granite Farmer* furnishes some corroborating facts on this point, which we condense for our readers. Charles Richardson, of Manchester, N. H., who cultivates a fine garden, succeeds in raising the best peaches on a tree almost completely shaded on the south and east from the sun, the roots, body and branches being kept at low temperature, while his other trees are barren. The fine peaches which excited so much attention at the Horticultural Society's rooms, in that city, raised by A. C. Heath and O. P. Warner, were from trees protected from the sun on the east and southeast, by brick walls. A tree in Concord, on the very top of what is called "The Mountain," has borne abundantly, the best of peaches, for twenty-five years, stands in a very exposed situation, and is surrounded every winter by snow banks several feet deep, which, melting late in spring, keeps the fruit-buds back till they are safe from frost.

Walpole, in Massachusetts, is celebrated for its fine peaches. The Neponset runs in a northerly direction through the town; and on its low banks, the peach tree grows luxuriantly, but *never bears*. On the gravelly ridges, above the valley, the trees bear abundantly. The editor of the Farmer states that in riding a distance of the fourth of a mile, up one of these ridges, he passed "from a *peach barren* to a *peach plenty*."

Preparing Ground for Orchards.

Digging holes eight feet in diameter, and filling them with well mixed and enriching materials, and trenching in plenty of decayed manure or compost to a depth of two and half or three feet, are both excellent modes of preparing the ground for trees. The rapid growth and the large and delicious fruit that result from it, afford more than full compensation for the cost of such preparation. But many cannot afford, as they think, to trench an acre of fruit garden, or to dig five hundred eight feet holes for an orchard. To such we would recommend the mode described by E. A. Mc Kay, of Naples, N. Y., in the *Horticulturist*, and adopted for his vineyard. The ground first received a very deep plowing—as deep as practicable without the aid of a subsoil plow. It was then measured off into strips, of a width equal to the distance of the rows; these strips were plowed separately, leaving a *dead furrow* in the middle of each—which, by repeated plowings, were deepened into the yellow subsoil nearly two feet. With a stout team and scraper, holes were excavated along these broad and deep furrows, six feet wide and eight feet in length, leaving the subsoil taken from them in the intervening spaces. In this way the holes were made rapidly, and at a cheap rate, and the dead furrows furnished a channel for their drainage, by loosening the subsoil. When the soil is compact clay, such a channel is of much importance, and it may be kept open for a few years to answer every required purpose, by laying a little coarse straight brush along the bottom, before the furrow is filled again. This will allow all the water to soak away, and prevent the holes becoming basins for its retention, which would be particularly injurious during winter. Many autumn-transplanted trees on clay lands are lost by want of a simple provision of this kind.

If a strip of land a few feet wide were subsoiled at each dead furrow, it would greatly facilitate the trench plowing, and enable the plow to descend to a greater depth afterwards. The holes, it will be understood, are to be filled with rich materials, well mixed with the soil, but never with manure *next the roots* of the young trees. The newly formed fibres of the growing trees will reach it in time, and the long and heavy shoots thrown out from the tops of the trees, will show just when that time is. These holes may be prepared late in autumn, for spring use.

We speak from ample experience when we recommend large holes, such as these, and we know them to be the cheapest and speediest mode of getting a large amount of the best fruit from young trees. Nor have we ever found in the least degree, the evil which some have anticipated, namely, a sudden check in the growth of the trees, as soon as the roots get beyond the boundaries of the holes. Large trees in a vigorous state of growth and widely rooted are not so easily affected in this way, as smaller ones, especially if they stand upon ground *kept well cultivated*. If the intervening spaces are subsoiled and well manured some years after the orchard is set out, they will be freshly fitted for the extending roots, in a better manner than if the whole had been enriched at once years before, and the fertility partly expended before the net-work of fibres had extended over the whole surface.

◆

The Horticulturist for November has for its frontispiece, the Doyenne d'Ete Pear.

The Grazier.

The Cow made Profitable.

Very many families keep but a single cow. They are not farmers, but they have learned that milk is an almost indispensable article of food for children, and that it enters largely and profitably into a great variety of compounds prepared for the sustenance of the whole household. It is to them a matter of no small moment that the supply be regular and abundant. This can be secured in most instances in the country and small villages, only by keeping the animal that affords it. And, even though such a course could be shown to be wanting in economy, should the cow be found to consume more value than she is able to repay, still the immense convenience and luxury of a daily supply of pure, fresh milk, will more than counterbalance the odds. The milk which has been subjected to miles of churning in the dairyman's can, is quite another article, to say nothing of dilutions and adulterations. But the milch cow, when properly treated, is not an expense. She is no pensioner. She is not to be ranked as a cumberer of the soil. It has been estimated, no doubt correctly, that four quarts a day will pay for her ordinary keeping If so, she may easily be made a source of profit. No poor family need be rendered poorer, or made to forego other enjoyments for the sake of this.

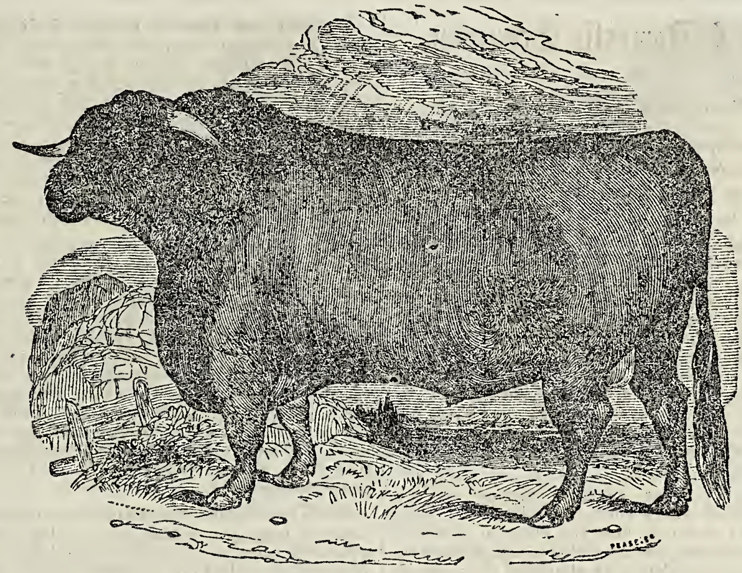
The living cow is to man nothing more nor less than a self-operating mill, in which the grasses and coarser grains are converted into milk and meat for his use. Like all other useful machines, she transforms the raw material, and returns a product improved in quality, though of diminished quantity. Her food, when abundant and nutritious, is divided after digestion into four parts, and receives as many different destinations; and first, a specified amount must be retained by her for her own sustenance. Indeed she takes a pretty generous toll for this purpose out of every grist brought to her mill. A second portion, highly purified and concentrated, is returned in milk; a third, in the form of fat, goes to improve the quality of her flesh for food, and the fourth passes by the natural channels from the system.

All machines are useful in proportion to the amount of service they are capable of performing. In the case of the cow, this must depend mainly on the quantity of *her proper food* which she can transform into *food for man.* The more highly she is fed, the more milk and beef she affords. This must be true of all breeds, even the least improved. And yet this will not be construed to imply that there is not a vast difference in breeds.

On this principle I have managed for many years. I purchase in spring a new milch cow, somewhat advanced in years, both because her milk is then richer, and she is liable to be less dainty in taking slops than when younger; and I may add, she can be bought at less price. I give her all the waste food from my kitchen, rather than keep a pig. She will give back the value in twelve hours, whereas a pig must needs have a credit of many months. I prefer the ready pay system. I have lost too much by trusting *hogs.* In winter I give a hearty cow, morning and evening, a mixture composed of a bushel of cut hay, ten quarts of corn and cob-meal, and two pails of water. This will keep her busy most of the time, and during the first winter will go principally to milk, and the second more to beef, when she becomes fit to butcher. She is kept farrow, and is milked the whole time. With slight variations, according to appetite, &c., I have treated a dozen or more in this way, and with manifest advantage. One cow thus managed I killed in February of the second year, while she was giving ten quarts of milk daily, and she weighed, dressed, 750 pounds, and had 70 pounds of rough tallow. She was of good size and a hearty eater. This is the best way I have ever tried for disposing of old cows. Their milk, when thus fed, is of excellent quality, and until the fattening process begins, is very abundant. H. W. Bulkeley. *Ballston, Saratoga Co., N. Y., Oct.* 28, 1853

Training Steers.

A writer over the signature of L. M., in the January number of the Cultivator, requests information as to the mode of breaking steers. Having had some experience in that thing I am induced to throw in my mite, but if the views should prove of no use, let them pass as worthless. I will speak of steers that have not been gentled by handling. Take a strong rope, such as is used for digging wells, to one end of which make a noose and knot to go over the horns; the knot is to prevent the noose from closing too tight, thereby causing pain unnecessarily to the animals, as they are very sensitive about the root of the horn; bore a two inch auger hole in the side of a planked house, through which draw the rope, until there is enough to give the animal room to lie down; the second one in like manner, just so close that they can not poke each other. Let them stand in that position for four or five days, or until they are satisfied by handling that they can not pull away; then put a Naıp ol halteoon on them separately and lead them about in company of each other, say round a field, and they will soon lead like dogs; then tie them to the original ropes, put the yoke on, tie their tails together with a leather strap in the long hair at end of tails, to prevent them sidling off and turning the yoke. If it should possibly occur that they get into difficulty the strap can be cut. Walk them about till they get a *little* jaded, without hitching to any thing the first time. When you want to take the yoke off, tie up to the original ropes, and a few times repeated, they will want nothing but to be shown how to work, which I prefer doing by cutting a small sapling or pole about 15 feet long; put one end in the ring of the yoke and the other resting on the ground. When they are put to *work*, I prefer, as the best place, between the *harrow* and a gentle pair of oxen, the driver holding the



Derby Bull.

This cut gives a faithful representation of the old Derby bull. This breed, however, has gradually died away, and it is comparatively seldom that a pure Derby can now be met with. The short-horns have taken possession of this portion of the territory of the long-horns also, and there are few dairy farmers now, and especially in the neighborhood of Derby, that have any long-horns in their dairies; and yet it is confidently asserted that some cows of the ancient stock have yielded as much as seventeen pounds of butter in a week.—*Youatt.*

young ones by a rope or Napoleon halter and guiding the leaders by the whip. They follow their kind better than horses, and on plowed ground they soon tire and get gentle; and further, there is no necessity of being as particular where the harrow goes, as if it was a plow, and a wheel vehicle might sometimes move too fast. In the fore part I allude to a planked house, because there would be no place for a fractious steer to get his horns fast. I have been in the habit of tying them by ropes, to yoke, until they became sufficiently gentle to dispense with it. A Marylander.

High vs. Low Horses.

I have been struck by some of the positions in the *Country Gentleman's* account of the late Horse Show at Springfield. In giving a history of the origin of the affair, you state—

It was seen, by the originator of the movement, and by those who sympathized with him, that New-England and the country generally were indebted to a single State for the most of their desirable and valuable horses. It was seen that single breeding animals had been the source of almost millions of revenue to the breeders of their respective localities, and that in the majority of the States of the Union it was almost impossible to find a horse, bred at home, that was of high value.

The sentiments of this paragraph are undeniably correct, and are worthy of being kept constantly in view. Turn now to the sketch of the speech of Mr. Holcomb. He said, "the stock of thorough-breds was depreciating in England. * * * He thought the size, and more particularly the height of the Morgans and Black Hawks might be increased (which he advised) by feeding the colts more highly for the first year. He also advised crossing the stock with larger horses."

That gentleman, in the course of his remarks, spoke of the Arabian horse. Now it is well known that it was while the English adhered to the general character of this breed, that their horses were so famous for long races and power of endurance. But the Arab, in his highest purity. is not the tall animal which some amateurs advocate. The latest, and perhaps the most reliable, of all authors, Mr. Layard, informs us that the average height of these celebrated animals, is from 14 hands to 14¾, rarely reaching 15. An Arabian horse only 14 hands high, lately beat a noted English mare, 15½ hands high, in a race near Alexandria. He belongs to Hallem Pasha, a son of the Viceroy of Egypt. We are informed that a challenge has now been given to run the same horse a distance of fourteen miles, against any competitor, and that the English are deliberating whether it is safe to accept it.

Such is the stature of the most famous breed of horses in the world. And yet we have seen a late attempt in this country to put such noble animals entirely out of the category of *horses*, allowing them only the name of *ponies!*

A pamphlet, written by a distinghished cavalry officer, has lately been published in England, in which it is shown that two of the principal causes of the degeneracy of English horses, are breeding from those of too great height, which has been done both to adapt the stock to the London taste for carriage horses, and to produce those which can run rapidly at short distances, and forcing the growth of the young animals by high feeding.

If these practices produce such results abroad, why should we be encouraged to adopt them? In conclusion, I can only say, that whatever *experiments* may be made in reference to suiting an absurd fashion of a day, I hope our breeders will adhere to the standard, as to size, height, and shape, which experience has proved constitutes the most serviceable, useful, and really valuable horse. Multum in Parvo.

Rural & Domestic Economy.

Worth Knowing—Burns.

Some of the papers have had a paragraph recommending the use of *wheat flour* in the case of scalds or burns. A gentleman at Dayton writes that he tested it to his satisfaction. He says:

While at the supper table, a little child which was seated in its mother's lap, suddenly grasped hold of a cup of hot tea, severely scalding its left hand and arm. I immediately brought a pan of flour and plunged the arm into it, covering entirely the parts scalded with the flour. The effect was truly remarkable—the pain was gone instantly. I then bandaged the arm loosely, applying plenty of flour next to the skin, and on the following morning there was not the least sign that the arm had been scalded—neither did the child suffer the least pain after the application of the flour.

Reader, do you bear this little fact in mind, if a similar occasion offers.

Remarks.—We have ourselves experienced the soothing effects of wheat flour years since. A watery rash broke out under the arm, the effect of heat and sweat in the field, and having nothing else at hand we rubbed on some dry flour. It alleviated the pain at once, and as we think was the cause of its healing, as it did speedily. We can readily perceive after this personal trial of its virtues that the above statement of the Dayton gentleman is not an exaggeration.—*Ohio Farmer.*

A Cheap Filter.

As efficient a filter as can possibly be constructed may be made in a few minutes by any person, and at the cost of a very few pence. Procure a clean flower-pot of the common kind, close the opening of the bottom by a piece of sponge, then place in the inside a layer of small stones, previously well cleansed by washing; this layer may be about two inches deep, the upper stones being very small; next procure some freshly burnt charcoal, which has not been kept in a damp or foul place, as it rapidly absorbs any strong smells, and so becomes tainted and unfit for such purpose; reduce this to powder, and mix it with about twice its bulk of clear, well-washed, sharp sand; with this mixture fill the pot to within a short distance of the top, covering it with a layer of small stones, or what is perhaps better, place a piece of thick close flannel over it, large enough to tie round the rim of the pot outside, and to form a hollow inside, into which the water to be filtered is to be poured, and which will be found to flow out rapidly through the sponge in an exceedingly pure state. The flannel removes the grosser impurities floating in the water, but the filter absorbs much of decaying animal and vegetable bodies actually dissolved in it; when it becomes charged with them it loses this power, hence the necessity for a supply of fresh charcoal at intervals.—*Monthly Observer.*

Duration of Posts.

The result of forty years experience and observation, with me, is that common fence posts set in the ground *green*, and butt end downwards will last, in a sandy loam, about ten years. The same set in like situation, inverted, will last fifteen or eighteen years. The same timber, (and soil of the same,) well *seasoned* before setting will last eight or ten years longer. I speak of good white chestnut or white oak. Timber cut in the old of the moon in February, will not be eaten by worms, will not snap in burning, and will last much longer made into posts than when cut at any other time. I have chestnut and white oak posts standing well that were set twenty-eight years ago. O. Brigham, *in N. E. Farmer.*

Receipt for Joining Glass.—Melt a little isinglass in spirits of wine, and add a small quantity of water. Warm the mixture gently over a moderate fire. When mixed by thoroughly melting, it will form glue perfectly transparent, and will re-unite broken glass so nicely and firmly that the joining will scarcely be perceptible to the most critical eye. Lime mixed with the white of an egg forms a very strong cement for glass, porcelain, &c.; but it must be done neatly, as when hard, the superfluous part can not easily be smoothed down or taken off.—*Scientific American.*

Skin Diseases.—For some eruptions on the face, borax is an excellent remedy. The way to use it is to dissolve an ounce of borax in a quart of water, and apply this with a fine sponge every evening before going to bed. This will smooth the skin when the eruptions do not proceed from an insect, working under the cuticle. Many persons' faces are disfigured by red eruptions caused by a small creature working under the skin. A very excellent remedy is to take the flour of sulphur and rub it on the face dry, after washing it in the morning. Rub it well with the fingers, and then wipe it off with a towel. There are many who are not a little ashamed of their faces, who can be completely cured if they follow these directions.

To Clean Combs and Brushes.—To enough tepid water to cover the bristles, not the top of the brush, add a few drops of the spirits of hartshorn, an ounce of which may be had for sixpence at any apothecary's; dip the brush several times, shaking out the water carefully, and the mixture will act like magic, leaving it clear and pure, needing only to be dried by a towel; no rubbing is needed. Combs may be done in the same way without injury.—*Lady's Book.*

To Cure Nose Bleeding.—Roll up a piece of paper and press it up under the upper lip. We have tried this plan in a great number of cases and have only seen it fail on one occasion.

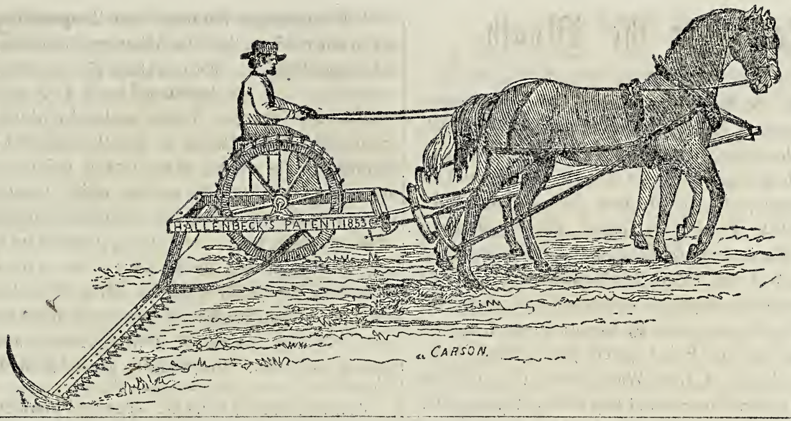
A New Seidlitz Powder.—A new Seidlitz powder, in one paper, is now used, and found to be as useful as any. It is composed of one part of bicarbonate of soda, and two parts of bitartrate of soda. Half a teaspoonful is dissolved in spring water.

A Good Wash for the Hair.—Beat the whites of six eggs into a froth, and with that annoint the head close to the roots of the hair. Leave it to dry on; then wash the head and hair thoroughly with a mixture of rum and rose water in equal quantities.

Washing by Steam.—A New-York correspondent of the *Boston Transcript*, in describing the new St. Nicholas Hotel in that city, thus refers to the steam washing machine in the basement of the building:—"This is something new under the sun. Four hundred pieces are thrown into a cylinder, half filled with water and soap-suds. This is thrown into rapid revolution by a small steam-engine. Steam is then let into the cylinder under the water and clothes, which raises them out of the water, passing through the pores of the fabric, and out at the top of the cylinder. The clothes are thrown down again by the pressure of steam into the suds and so on. The changes thus produced by the rapid revolution, and by the passage of the steam thro' the clothing, washes them perfectly clean in the space of ten minutes. The clothes are then thrown in a body in another cylinder, and wrung by the revolution of the cylinder, and then by letting in hot air, which passes through the clothing, they are perfectly dried, ready for ironing in seven minutes. The whole time occupied in washing, wringing, and drying, is but seventeen minutes. The advantages of this apparatus are—first, an immense saving of time and expense in washing; second, the finest cambrics can be washed without wearing them out or injuring the texture, as is necessarily done by rubbing."

* * *

The Lecture on Flax, delivered by Prof. Wilson, of England, at the late State Fair at Saratoga, has been published by C. M. Saxton, New-York.



Hallenbeck's Mowing Machine.

The above cut represents a new mowing machine, invented by Martin Hallenbeck, of this city. The whole machine is very simple in its construction, and obviates the difficulties heretofore experienced in machines of this kind. The frame is balanced upon the driving wheel. The point of draught is placed between the wheel and finger bar. It is single geered, the pinion on the crank shaft meshing directly in the driving wheel. The pinion shaft is cast steel, wearing in a composition box 6 inches long. On this shaft is a balance wheel, and the crank pinion in it. From this crank the motion is communicated directly to the sickle, by means of a connection bar suitably shaped. The finger bar is attached to the frame at its rear end, a little back of a line drawn at right angles to the periphery of the wheel. The cutters are sickle-edged, beveled from the upper side, and rest on and cut against the finger on the under side. The sickle bar is held in its place by a plate extending its entire length, and enclosing it free from grass and dirt. This plate is adjusted by means of screws. The fingers are so constructed that the sickle blade is uncovered on the upper side, yet the point of the sickle is protected. The sides of the fingers are so made that when the grass is acted upon by the cutters it cannot recede, but is effectually cut off. Each finger forms a shoe to bear the finger bar. The whole finger bar is of wrought iron. The driver's seat is placed on the side of the wheel opposite the finger bar.

The following advantages are claimed for this machine:

1. Its simplicity, which will be readily perceived.

2. The ease with which it is drawn by two horses. The frame being balanced on the wheel, the weight of the driver causes the finger bar to rest lightly upon the ground, and renders the draught comparatively easy.

3. There is no side draft. The tongue for the horses being placed on the frame at a point suitably proportioned, so that the resistance of the wheel and finger bar counterbalance each other.

4. The location of the finger bar on the frame at a point where it can adapt itself, independent of the wheel, to uneven surfaces, by raising or falling, while at the same time, by an arrangement at the tongue, the fingers may be raised or lowered, to cut long or short stubbles.

5. The single geer. In consequence of the great improvement in the cutting parts, less velocity of the sickle is required, and a single geer is used to the best advantage.

6. The peculiar construction of the fingers, so that every possibility of the sickle clogging is obviated.

7. The sickle is so placed above the finger, that the friction sharpens it, and it requires no grinding.

8. The shoe on the end of the finger bar is so shaped that it does not crush down the grass over which it passes. And the track clearer, by its trembling motion, clears itself, and opens a clear track.

This machine is manufactured in this city, at the Agricultural Works of Deering & Dederick, corner of Franklin and Bleecker streets, where they may be seen at any time. The price is fixed at $110, guaranteed to give satisfaction.

For further information, letters may be addressed to the inventor. D.

Muck for Composts.

Ilion, Herkimer Co, N. Y., Nov. 7, 1853.

Messrs. Editors—We have several ponds and reservoirs on a rapid stream, in which large quantities of alluvial matter are being continually deposited, and which has to be got rid of from time to time, either by opening gates in our "bulk-heads" and *washing it down stream*, or by taking it out on wheel barrows. When so wheeled out could it be made available as a *fertilizer;* if so what would be the best manner of preparing and applying it?

If convenient, a reply in your next number will much oblige an Old Subscriber.

The "matter" mentioned above, is a valuable base for compost. It may be carted into the barn-yard, and thoroughly mixed with stable manures, or be used to absorb the urine from the stables, or made into a compost with ashes, lime, &c. Numerous directions for such composts will be found in our past numbers.

Notes for the Month.

ARRIVAL OF MR. THORNE'S STOCK.—The steamer Hermann which arrived in New-York the 29th Oct., from Southampton, brought over most of the Short-Horn Cattle purchased by Mr. THORNE in England the past summer, viz: the Duchess bull *Grand Duke*, *Duchess 59th*, *Frederica*, *Lallah Rookh*, *Mystery*, *Aurora*, *Peri*, and *Darling*. The steamer experienced very bad weather, from which the cattle suffered severely, and one animal, *Duchess 68th*, for which Mr. T. paid $1,500, was killed by the breaking ef a mast. There were also on board seven prize South Down Sheep purchased of Lord Walsingham, (five of them belonging to Mr. THORNE and two to Mr. ROTCH, of Otsego,) three of which were killed by the staving in of the sheep-house. Mr. DULANY, of Virginia, also had on board ten South Down Sheep from Mr. Webb's flock, three of which were killed by the same calamity.

FINE SHEEP FOR OHIO.—WM. H. LADD, of Richmond, Ohio, whom we had the pleasure of meeting at the Springfield Exhibition, returned to Ohio last week, taking with him nineteen head of very superior fine-wooled sheep. Three of them (a ram and two ewes) were Silesian Merinos, selected from a lot of thirty-one, just imported by Mr. CAMPBELL, of Vermont, and Mr. CHAMBERLAIN, of Red Hook, from Silesia. The others were selected from the well-known Saxon flock of C. B. SMITH, of Wolcottville, Conn. Three of these were imported from the flock of Baron de Spech, in Saxony, and the others bred by Mr. SMITH. We are glad that these fine sheep have gone into so good hands, for Mr. LADD is widely-known as a breeder of fine-wooled sheep, and his flock is said to be equal to any in Ohio.

VETERINARY SURGEON.—A young gentleman who has thoroughly studied his profession as a veterinary surgeon, having graduated at Edinburgh in 1851, and since been in active practice, wishes to find a favorable location for the practice of his profession in this country. Letters on the subject may be addressed to the Editors of this paper.

MAPLE SUGAR AND MOLASSES.—We have seen many fine samples of these articles at our State Fairs; but the purest specimens we have ever seen, have been sent us by Mr. WALTER R. DEAN, of Manchester, Vt. Both the sugar and the syrup are as white and as free from any impurities as the best refined made from the cane. Mr. D. informs us that it was made by a recipe which he found in a former volume of The Cultivator. If he will refer us to it, we will republish it for the benefit of our readers.

☞ We are greatly indebted to many of our friends for newspapers and pamphlets containing reports of State and County Fairs. We have made extracts from some of them, and shall hereafter, as opportunity offers, glean from them such things as we may deem useful to our readers.

A DISCOVERY—We infer, from the question addressed to our readers, that the following letter was intended for publication. We therefore give it a place:

SUCCA-SUNNA, N. J., Nov. 5, 1853.

MESSRS. EDITORS—I have a plan by which the agricultural community can be greatly benefited; in fact it would be the saving of millions of dollars; it quite does away with an old system, which heretofore has been a great impediment to the farmer; its simplicity is so apparent, that it would only have to be mentioned, to be understood by the most common mind. It is something for which a patent can not be obtained.—Can any of your readers inform me in what manner, I could be compensated, for allowing such a valuable secret to be known. Respectfully yours, A. M. HUNTER.

THE PEOPLE'S JOURNAL.—The first number of this publication has been issued in an attractive form. It is designed to be an Illustrated Record of Agriculture, Mechanics, and Useful Knowledge. It will contain a description of new inventions of practical importance, accompanied with superior cuts. It is to be published monthly, each number consisting of 32 pages, and is furnished at the low price of FIFTY CENTS a volume, two volumes being issued yearly.

Address ALFRED E. BEACH, Editor and Publisher, 86 Nassau street, New-York.

STUMP MACHINES.—A subscriber at Port Hope, C. W., who proposes to make a business of pulling stumps, wishes to be informed as to which of the machines heretofore described in the Cultivator, would be the best for his purpose. Also, the number of pine stumps that could be pulled in a day on land that has been cleared from 15 to 40 years; and the cost of pulling where the work is done by the job. Any information on these points will be acceptable from any of our readers.

TO KEEP CELERY FOR WINTER USE.—In answer to the inquiry of J., (Birmingham, Ct.,) we give the following mode, which was strongly recommended by the late Mr. Downing:

> Instead of taking the plants into the cellar or root-house, (where they are always more or less liable to decay,) bury them, when you are forced to lift them out of the trenches, in any open, dry part of the garden. Choose such a spot; lay in (in an inclined position,) a row of plants, leaving the green tops out of the ground; cover this row with soil, say a layer of three or four inches; then lay in another row, covering as before, until your whole stock is thus disposed of. Press the earth slightly upon the roots as you cover the plants. You will find that a small plot of ground will cover a great many heads of celery. When the whole is thus buried, cover it with a layer of straw, 2½ feet deep. This will keep out the frost, and you can go at any time and get a few days' supply of celery,—while the uniform cool temperature maintained in the soil prevents decay. A few boards or poles should be laid over the straw to keep it in its place.

TASTE OF TURNEPS.—Of all the different means to prevent the taste of turneps in milk and butter, the following appears to promise one of the best, and may be adopted by those who have an apparatus for cooking food for animals: Boil or steam the turneps, mix them with cut straw or hay, and with a portion of mill feed, or with pea or bran meal.

S. W. Jewett.—This gentleman, so well known by his extensive importations of French Merino Sheep, has again gone to France to make further purchases, from which the public will iefer that the importation of these sheep, expensive as it is, has proved a profitable business. Mr. S. sailed for Havre in the ship Franklin, on the 19th Nov. It will be seen by his advertisement in this paper, that he offers to make purchases of any kind of domestic animals for all those who wish the benefit of his services.

Foreign Butter in England.—Of the importations of butter into England, for the past three years, Holland has supplied more than two-thirds, or about *ten thousand tons* annually. The Hanseatic towns stand next on the list, and supply about two thousand tons annually; Belgium about one thousand tons; and other countries, much smaller quantities. In 1850, the United States sent about 360 tons of butter to England; in 1851, about 140 tons; in 1852, 14 tons.

☞ The apple left at our office by Mr. S. C. Hamilton, of Canajoharie, was, we think, a genuine Fall Pippin.

Fine Corn.—Mr. James McKown, of Guilderland, has sent to our office a beautiful sample of small 8-rowed yellow corn. The ears are about 12 inches long, and well filled out.

The Crowbar.

Messrs. Editors—The important use of the plow, the harrow, the hoe, and many other farming implements, are freely brought to notice in your paper; and I would, as I reside in a portion of New-England where a great part of the lands from their roughness, made so by stone and otherwise, bid defiance to the plow in their present state, recommend the use of the crowbar. One object I have in view is to arouse the attention of young men, and here I ask, would it not be as well, if not better, as a general rule, for the young men of New-England, who are leaving the broad acres of their father's farms for the far distant west, and as a pretence that the lands will not afford a competency for themselves and prospective families, to abandon their migratory impulses, and make free and thorough use of the crowbar—remove the stone from the soil, put them into permanent fence, then introduce the plow, and change these sterile lands into fruitful fields, whose productions shall both repay and make glad the labors of their hands. While the former course terminates in a broken constitution, or premature death, before the individual becomes acclimated to his new position, the latter is more likely to increase the wealth, and promote the health and happiness of the individual, to swell the circle of friends, and contribute much to happify the social gatherings around the fireside of parents; thus performing many duties more consistently to their parents, their God and themselves. Yours respectfully. A. Yeomans. *Columbia, Ct., Oct.* 31, 1853.

Large Plums.

I am not a farmer. My gardening is confined to a small flower border, a few window plants, and a space just about large enough to swing a bull by the tail all round, without his horns touching; nevertheless, I am fond of reading agricultural subjects, and take the "Cultivator," it is so cheap, and very entertaining.

I observe in the October number, page 316, a measurement of plums by R. T. Borden, of North Easton, in which he asks, with a gentle flourish of trumpets, if any one can beat his 6½ inch Washingtons, 6 inch Columbias and Nectarines. He does not state which circumference of his plums he measured. There are three ways of doing this: first, longitudinally; second, latitudinally; and, third, the circumference, round what might be called the edge of the breadth. I have a tree growing in my garden of the Washingtoe kind, which bore this year only about twenty plums. I measured one of the largest, picked about two weeks before coming to maturity, it having been loosened on its stem by the winds, and it measured longitudinally, or down the suture, 5⅞ inches; latitudinally, 6½ inches, good; and round the edge of the breadth, 7⅛ inches; and it weighed nearly three ounces.

I do not say that this *beats* Mr. Borden's, but considering that we live away down east here in the provinces, and that we do not enjoy so good a fruit-ripening climate as the Empire State does, I think we can come pretty close up to him.

A friend, a neighbor of mine, showed me a plum which he called an egg plum, grown in his garden, which, without our measuring it, was larger than the one the dimensions of which I have given. I am, very respectfully yours, J. W. H. Rowley. *Yarmouth, Nova Scotia, Oct.* 14, 1853.

Correction.—In the pedigree of Dr. Wendell's Short-Horns, in the Country Gentleman of October 20, p. 249, the cow mentioned as "Daisy 5th," should have been Daisy 4th.

Leicester Sheep.—At the late ram-letting of Leicesters by Mr. Sanday, of Holme Pierrepont, near Nottingham, fifty-one sheep let for £24,13, equal to $121,-50 per head.

White Shanghais.

CHICKENS of the above named variety, bred directly from stock obtained of Dr. E. Wight, may be had by addressing
JOSEPH S. HILDRETH,
No. 51 Court-street, Boston.
Dcc. 1.—m2t*

Willow Cuttings and Raspberries for sale.

THE threc best varieties for American culture and use are Triandra, Forbyana and Purpurea. Price, $5 per 1000. They are of remarkably vigorous growth, having been cultivated with special reference to their use as cuttings.

Full directions for their management given to those who purchase for planting by the acre.

Raspberries—Fastolf, Franconia, Knevett's Giant, and the large (Hudson River) Antwerp. Price, $50 per 1000. A few hundreds of Rivers' large fruited Monthly. $6 per 100. Remarkably strong, well rooted plants.

Catawba Grapevines, one year old. Price, $6 per 100. The cuttings were from the vines which produced the grapes for which we received the first premium, at the great fair of he American Institute

C. W. GRANT, Newburgh, Orange co.

All of the above for sale also by Charles Downing, Nurseryman, Newburgh. w1t m1t*

Water Cure.

NEW GRAEFENBERG HYDROPATHIC & KIRESIPATHIC ESTABLISHMENT. The success of this institution is without a rival. For full printed particulars (which will be sent gratis)

Address R. HOLLAND, M. D.,
Nov. 17.—w1tm1t* New Graefenberg, N. Y.

Farm for Sale.

THE farm lately owned and occupied by Richard Dey deceased, situated on the eastern bank of the Seneca lake, in the township of Fayette, county of Seneca and State of New-York. It contains about 158 acres of very fertile and finely situated land, not an inch of which but what is capable of tillage; it slopes gently to the lake and is in full sight of, and only 7 miles from, the beautiful town of Geneva, adjoining the premium farm of Andrew Foster, Esq. 50 acres are in wood, 8 acres in orchard of superior grafted fruit, and the balance in pasture and grain. The buildings consist of a plain farm house, in good repair, and also good barns, sheds, work-shops, carriage house and chicken houses and granary, a good well of water and a running spring.

This farm is offered low to close an estate. The price, $50 per acre, and the terms of payment can be made to suit almost any purchaser. Apply to

R. DEY,
74 Cortlandt-street New-York, or
CHA'S A. COOK, Esq.,
Dec. 1.—m3t President of the Bank of Geneva.

New-York Agricultural Warehouse.

HORSE Powers, Threshers, Fan Mills, Smut Machines, Grain Drills, Hay Presses, Grain Mills, Corn and Cob Crushers, Cider Mills, and a large assortment of Plows and all kinds of Agricultural and Horticultural Implements.

Peruvian Guano, Super-phosphate of Lime, Bone Dust and other fertilizers of the most superior kinds.

R. L. ALLEN.
Aug. 18—wmtf. 189 & 191 Water-st., New-York.

ANDRE LEROY,

Nurseryman, - - - - - Angers, France,

HONORARY AND CORRESPONDING MEMBER, &c., of all the principal Agricultural Societies of Europe and America, begs to inform his friends, and the public in general, that he has just published his Catalogue for 1853, which is the most complete one ever made. All the prices and required information for the importation of all kinds of Trees, Shrubs, Evergreens, Stocks, Roses, &c., will be found in said Catalogue, which can be had free of charge, on application to the undersigned, who will receive and forward all orders, and attend to receiving and forwarding of the trees ordered, on arrival here. It is useless to add that Mr. LEROY possesses the largest NURSERY on the Continent. His experience in putting up orders for America, and the superior and reliable quality of all his trees, &c., is too well established to require any further notice. Orders should in all cases be sent to the undersigned in the fall, with information when the trees are to arrive here, and how they are to be forwarded. E. BOSSANGE,

Sept. 29—m3t. 138 Pearl-st., New-York.

Suffolk Pigs.

THE subscribers are prepared to receive orders for pure Suffolk Pigs, bred from stock imported in 1848 by the late William Stickney, also by the subscribers in Jan. last. Address, JOSIAH STICKNEY, Boston or Watertown, or
ISAAC STICKNEY, Boston, Mass.
September 1—m6t.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feby. 11.—m Braintree, Mass.

Manures.

PERUVIAN GUANO, 2¼ to 2½ cents per pound.

BONE DUST, when taken in equal quantities, $2.25 per barrel.

BONE SAWINGS, separately, $2.50 per barrel.
PLASTER, $1 to $1.25 per barrel.
POTASH, 3¾ to 4 cents per pound.
CHARCOAL, $1 per barrel.
SULPHURIC ACID, 2¼ to 2½ cents per pound.
SUPERPHOSPHATE OF LIME, 2¼ cents per pound.
WOOD'S RENOVATING SALTS, one cent per pound.

For sale at the State Agricultural Warehouse, No. 25 Cliff-street, New-York. LONGETT & GRIFFING.
Feb. 1—ctf.

United States Agricultural Warehouse and Seedstore

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine —also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, arm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers. Jan 1, 1853—m&wtf.

Basket Willow.

CUTTINGS of the best kinds of Basket Willow, with directions for planting, for sale at $5 a thousand, by
WM. H. DENNING,
Sept. 22—m2t* Fishkill Landing, Dutchess Co., N. Y.

Fancy Fowls for Sale.

THE subscriber offers for sale one hundred pairs of Brahma Pootra, Shanghae, Cochin China, and Bolton Greys, all warranted pure. THO'S WRIGHT.
Utica, Nov. 1, 1853.- m3t

Peruvian Guano.

WE are receiving our supply of Peruvian Guano per ships Blanchard, Senator and Gray Feather from the Chincha Islands, and now prepared to make contracts for the spring supply. As the demand is large we would advise all who may be in want of this valuable manure to make early application. Price, $45 per ton of 2,000 pounds. Be particular to observe that every bag is branded,

Warranted No. 1 Peruvian Guano.

Imported into the United States by F. Barreda, Brothers, for the Peruvian Government.
LONGETT & GRIFFING,
State Agricultural Warehouse, No. 25 Cliff-street, New-York.
Oct. 20th—w&mtf.

To Flax Growers.

THE subscriber has invented and builds to order, a FLAX MACHINE, which, attended by two hands, is guaranteed to dress from three hundred to four hundred and fifty pounds of flax per day. The saving in labor and tow, by comparison, is considered equivalent to the cost of dressing flax by the best common machinery, used in this country and Europe. The new machine is made with care, to secure strength and durability, and can be run at a speed which requires more than two hands to attend it. Unrotted flax straw can be dressed by it. It can be driven by horse power or otherwise; and, being portable, can be sent any distance. For the present, the price of the machine complete, is $400. Those who wish to obtain it in season to begin operations next autumn, will do well to apply soon.

S. A. CLEMENS.
Springfield, Mass., March 9, 1853.—mtf.

Kentucky Farm for Sale.

THE subscriber offers for sale his Farm, consisting of 300 acres of good land, situated in Clark county, Ind., about twenty miles above Louisville, Ky., and one and a half miles from the Ohio river—200 acres under cultivation, and the remainder heavily timbered with blue ash, black walnut and sugar tree—woodland sowed in blue grass, with a good orchard and ten never failing springs; soil well adapted to blue grass, clover, corn and oats—peculiarly adapted to the grazing or dairy business, as it is near Louisville, and any amount of butter can be disposed of at the river to boats at the highest price—with a fine site for an overshot water mill. Price $30 per acre. For further information address
Oct. 13—w2m2 F. R. MORTON, Shelbyville, Ky.

PROSPECTUS FOR 1854.

THE SATURDAY EVENING POST.

UNRIVALED ARRAY OF TALENT.

THE Proprietors of the POST, in again coming before the public, would return thanks for the generous patronage which has placed them far in advance of every other Literary Weekly in America. And, as the only suitable return for such free and hearty support, their arrangements for 1854 have been made with a degree of liberality probably unequaled in the history of American newspaper literature. They have engaged as contributors for the ensuing year the following brilliant array of talent and genius:—

MRS. SOUTHWORTH—EMERSON BENNETT—MRS. DENISON—GRACE GREENWOOD AND FANNY FERN.

In the first paper of January next, we design commencing an Original Novelet, written expressly for our columns, entitled

THE BRIDE OF THE WILDERNESS.

BY EMERSON BENNETT,

AUTHOR OF "VIOLA," "CLARA MORELAND," "THE FORGED WILL," ETC.

This Novelet, by the popular author of "Clara Moreland," we design following by another, called

THE STEP-MOTHER.

BY MRS. MARY A. DENISON,

AUTHOR OF "HOME PICTURES," "GERTRUDE RUSSELL," ETC.

We have also the promise of a number of

SKETCHES BY GRACE GREENWOOD,

Whose brilliant and versatile pen will be almost exclusively employed upon the POST and her own "LITTLE PILGRIM."

Mrs. Southworth—whose fascinating works are now being rapidly republished in England—also will maintain her old and pleasant connection with the Post. The next story from her gifted pen will be entitled,

MIRIAM, THE AVENGER; OR, THE FATAL VOW.

BY EMMA D. E. N. SOUTHWORTH,

AUTHOR OF "THE CURSE OF CLIFTON," "THE LOST HEIRESS," "THE DESERTED WIFE," ETC.

And last—not least—we are authorized to announce a series of articles from one who has rapidly risen very high in popular favor. They will be entitled a

NEW SERIES OF SKETCHES,

BY FANNY FERN,

AUTHOR OF "FERN LEAVES," ETC.

We expect to be able to commence the Sketches by FANNY FERN—as well as the series by GRACE GREENWOOD—in the early numbers of the coming year.

Engravings, Foreign Correspondence, Agricultural Articles, The News, Congressional Reports, The Markets, etc., also shall be regularly given.

☞ CHEAP POSTAGE.—The postage on the Post to any part of the United States, when paid quarterly in advance, is only 26 cents a year.

TERMS.—The terms of the POST are Two Dollars a year in advance.

4 COPIES,		$5 00	PER ANNUM.
8 "	(And one to the getter up of the Club,)	$10 00	"
13 "	(And one to the getter up of the Club,)	15 00	"
20 "	(And one to the getter up of the Club,(	20 00	"

The money for Clubs always must be sent in advance. Subscriptions may be sent at our risk. When the sum is large, a draft should be procured, if possible—the cost of which may be deducted from the amount. Address, *always post paid,*

DEACON & PETERSON,
No. 66 South Third Street, Philadelphia.

☞ N. B.—*Any person desirous of receiving a copy of the POST, as a sample, can be accommodated by notifying the publishers by letter,* (post-paid.)

☞ TO EDITORS.—Editors who give the above one insertion, or condense the material portions of it, (the notices of new contributions, and our terms,) for their *editorial* columns, shall be *entitled* to an exchange, by sending us a *marked* copy of the paper containing the advertisement or notice.

Super-phosphate of Lime.

IN bags and barrels, made by C. B. DeBurgh, a warranted pure and genuine article, for sale by

GEO. DAVENPORT,
No. 5 Commercial, corner of Chatham-st., Boston,
Agent for the manufacturer, with directions for use.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.

April 7—14—1t—mtf

Devon Cows,

HEIFERS, and Bull Calves—pure-blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Works on Horticulture.

PRACTICAL Treatise on the Culture of the Grape Vine, by J. Fisk Allen. Third ediiton, enlarged and revised. Price $1.00.

Practical Treatise on the Construction, Heating and Ventillation of Hot Houses, Graperies, &c., by Robert B Leuchars—$1.00.

Gardening for Ladies, by Mrs. Loudon. Edited by A. J. Downing—$1.25.

Family Kitchen Gardener, by R. Buist—75 cents.

For sale at the office of the Cultivator, 395 Broadway.

The American Fruit Culturist, by J. J. Thomas. Eighth edition—$1.00.

Contents of this Number.

The Cultivator and Country Gentleman for 1854,... 361
The Agricultural Fairs of the Season,.......... .. 362
National Exhibition of Horses..................... 363
Death of John Delafield—Experiment with Indian Corn,......... .., ... 365
Seneca County,.. 366
Glass Water Pipes—Quackery in Agriculture—Salting Hay and Cattle,........................... 367
Value of Ashes, Lime, &c., to the Farmer—Interesting Experiments with Manures,.................. 368
Experiment in Suckering Corn—Heavy Profits of Cleanliness,.. 369
Farmers' Clubs,... 370
Notes on Fruits—American Grapes,................. 372
Destruction of Orchards by Mice—Autumn Transplanting of Fruit Trees—Western Apples,........ 373
Advantages of Shelter—Cracking of European and American Pears—Crossing Varieties of Plants—Experiments with Charcoal,.......................... 374
Sites for Peach Orchards—Preparing Ground for Orchards,... 375
The Cow made Profitable—Training Steers,........ 376
High *vs.* Low Horses, ... 377
Worth Knowing, Burns—A Cheap Filter—Duration of Posts,... 378
Hallenbeck's Mowing Eachine—Muck for Composts, 379
Notes for the Month,.................................... 380
The Crowbar—Large Plums,........................... 381

ILLUSTRATIONS.

The Chili Pine,.. 375
Derby Bull,.. 377
Hallenbeck's Mowing Machine,...................... 379

University of Albany.

DEPARTMENT OF LAW.—*Hon. R. HYDE WALWORTH, LL. D., President of the Faculty.*

HON. IRA HARRIS, L.L. D.,
HON. AMASA J. PARKER, L.L. D., } *Professors.*
AMOS DEAN, L.L. D.

The term commences on the third Tuesday of December, and continues sixteen weeks.

Fees for the course, $40. Degrees are conferred at the close of the term.

Price of board varies from $2 to $3 per week.

Nov. 10.—w4tm1t ORLANDO MEADS, Sec'y.

Albany Medical College.

The next Course of Lectures will commence on Tuesday the 21st of February next.

TWO Courses are delivered annually at this institution; one commencing on the first Tuesday in September, and the other on the third Tuesday in February, containing each sixteen weeks. Degrees are conferred at the close of each term.

ALDEN MARCH, M. D., Professor of Surgery.
JAMES McNAUGHTON, M. D., Prof. of the Theory and Practice of Medicine.
T. ROMEYN BECK, M. D., Prof. of Materia Medica.
JAMES H. ARMSBY, M. D., Prof of Anatomy.
THOMAS HUN, M. D., Prof. of the Institutes of Medicine.
AMOS DEAN, Esq., Prof. of Medical Jurisprudence.
HOWARD TOWNSEND, M. D., Prof. of Obstetrics.
EZRA S. CARR, M. D., Prof. of Chemistry and Pharmacy.

Fees for the first Course, $60; for the second, $50; for both Courses, if paid at the commencement of the first, $100. Matriculation fee, $5; Graduation fee, $20. The Clinical Lectures at the Hospital, are free of charge. There will be Cliniques every Saturday, as usual, in the College. Expenses for boarding from $2 to $3 per week.

Nov. 10.—w8tm3t THOMAS HUN, Register.

Short-Horns.

I OFFER for sale two Short-Horn BULL CALVES, in color, red, with white faces, flanks and feet, the get of Old Splendor. Also, one BULL CALF, red and white, the get of Vane Tempest. Prices, $150 to $300.

JOHN R. PAGE.
Sennett, Cayuga Co., N. Y., Nov. 22.—w2tm2t*

Shepherd Wanted.

WANTED—an experienced Shepherd to take care of a flock of sheep near Boston. Address, with terms and references, to HOVEY & Co.,
Dec. 1.—mtf 7 Merchants' Row, Boston.

Valuable Blood Stock for Sale.

FULL BLOOD DURHAMS—2 Cows, 1 Heifer Calf and 1 Yearling Bull of the celebrated *Morris Stock.*

1 Full Blood Devon Bull, 4 years old, of the *Hurlbut Stock* of Conn.

1 Full Blood *French Merino* Buck, 14 *Half Blood* yearling Bucks and a lot of Lambs, half bloods.

Suffolk Pigs constantly on hand, of the purest blood.

The above stock has been collected and reared with the greatest care and expense, and are now offered for sale upon the most reasonable terms on application to

Nov. 3.—m3t J. R. UPHAM, Claremont, N. H.

Importer of Stock.

ANY person who is desirous of importing from Europe any kind of Improved Stock, consisting of Alderneys, Ayreshires, Durhams, Devons, Herefords, or Normandy Cattle, or the different kinds of Horses, Sheep, Pigs, or Chickens, can avail themselves of my experience in purchasing and shipping them to New-York during the coming winter and spring at a reasonable commission.

Also, Cuttings of the Basket, or Ozier Willow, for transplanting.

My post-office address to Great Britain is, "York Hotel," Newbridge street, near St. Pauls, London, England.

To France, "Hotel de Colonies," Rue Paul le Long, Pres le Bourse, Paris.

Money deposited with Beebee & Co., bankers, 47 Wall street, New-York, with certificate of deposite forwarded to me at either address, will receive prompt attention.

SOLOMON W. JEWETT.
Middlebury, Vt., Nov. 14, 1853.—w1tm1t.*

SPLENDID ENGRAVINGS!

50 *Cents a Volume.*

The People's Journal,

AN Illustrated Record of Agriculture, Mechanics, Science and Useful Knowledge, Published Monthly, by ALFRED E. BEACH, No. 86 Nassau-St., New-York, (up stairs.)

Terms fifty cents a volume. Sent by mail to any part of the United States. Every Number contains 32 Large Pages of Letter-Press, beautifully printed on Fine Paper, and Profusely Illustrated with ENGRAVINGS.

Farmers, Mechanics, Manufacturers, and people of every profession, will find in the PEOPLE'S JOURNAL a repository of valuable knowledge peculiarly suited to their respective wants.

Terms—To subscribers, *fifty cents a volume.* Subscriptions may be sent by mail in coin, post-office stamps, or bills, at the risk of the publisher. The name of the Post-Office, County and State where the paper is desired to be sent, should be *plainly written.* Address,

ALFRED E. BEACH,
No. 86 Nassau-street, New-York City.

☞ Two volumes are published annually. Back numbers and volumes always on hand for sale. Single copies 10 cents each, to be had at nearly all the Book and Periodical Stores in the country.

THE PEOPLE'S PATENT OFFICE.

Inventors and others desiring to obtain Letters Patent for inventions, are requested to communicate directly with the Editor of the PEOPLE'S JOURNAL, by whom all the necessary documents are prepared, with the utmost fidelity and despatch. Patent business of every description promptly attended to. Persons wishing for information relative to Patents or Inventions, may at all times consult the undersigned, *without charge*, either personally at his office, or by letter. All communications and business strictly confidential. Patents promptly secured in England, France, and other foreign countries.

ALFRED E. BEACH,
Editor of the People's Journal, Patent Agent, etc.,
w1t m1t No. 86 Nassau-Street, New-York.

THE CULTIVATOR:

A MONTHLY JOURNAL OF

Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 CENTS A YEAR.

All subscriptions must commence with the January No., and the payments must in all cases accompany the order for the paper.

LUTHER TUCKER,
Publisher, Albany, N. Y.

Postmasters and all friends of agricultural improvement, are respectfully invited to act as agents for THE CULTIVATOR and THE COUNTRY GENTLEMAN.

SMITHSONIAN LIBRARIES
3 9088 01914 1365